Occidental Medical Times.

Vol. XII. MARCH, 1898. No. 3.

THE PREVENTION AND TREATMENT OF PUERPERAL INFECTIONS.

Read before the Sacramento Society for Medical Improvement.

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It is now a full half century since Semelweiss first promulgated the modern theory of puerperal infection. At first incomplete, but later amplified and perfected, this theory, practically as it came from the hands of its author, is to-day universally accepted by the medical world. On minor points the future may throw increasing light, but the great underlying principle Semelweiss determined for all time.

For Pasteur, however, it was reserved to lead the way to a scientific conception, and for Lister to found a rational prophylaxis of these and of kindred diseases. This immortal triumvirate, "Far from the madding crowd's ignoble strife," has played a part, silent and inconspicuous perhaps, but, in importance and heroic devotion, not transcended by that of the great captains who have led or stayed the march of empire.

But to ideal results ideal conditions are necessary, and these, in varied general obstetrics, do not now and perhaps never will exist. We have need, then, and shall always have need, not only of a rational prophylaxis, but also of a scientific treatment, of both of which it shall be the purpose of this paper to give a clear and accurate account.

As a basis of our discussion, let us set out with a few unquestionable postulates:

1. Both by the passage of the child and the separation of the placenta, labor produces in the parturient canal a traumatic condition of the first magnitude. Labor, in other words, is nature's one and only capital operation, conducted subcutaneously and, under normal conditions, with the strictest asepsis.

2. During lying-in, the genital tract affords conditions of heat, moisture and aliment extremely favorable to the multiplication of microörganisms.

3. The introduction of pathogenic microbes into the genital passages or, exceptionally, their accidental presence there during the puerperal period, constitutes the initial step in puerperal infection.

4. The pathogenic microbes of puerperal fever exist in large variety. Each species produces a distinct disease susceptible, generally, of microscopic, and occasionally of clinical differentiation. Two or more varieties may coexist, constituting a "mixed infection."

5. The multiplication of these microbes within the parturient canal, the absorption of their products, their invasion of the hematic and the lymphatic circulation, and of the tissues themselves, and the local and systematic reaction of the individual, constitute the clinical and pathological entity known as puerperal fever.

The prophylaxis of puerperal infection should begin, says Dr. Jewett, many weeks before labor. This prophylaxis consists chiefly of two things, viz.: in fortifying the resistance of the prospective mother and the rigid enforcement of asepsis. The general health of the pregnant woman should be intelligently supervised during the entire period of pregnancy, and departures from the normal condition, particularly those which diminish resistance to septic infection, should be prevented; or, when existing, should be rectified. Anemia and debility, of whatever origin, should be corrected. All of the important bodily functions, but especially those of innervation, digestion and excretion, and even the morale of the pregnant woman should be sedulously maintained. Nervous depression, the absorption of the products of gastro-intestinal fermentation and putrefaction, and retention of urinary excreta seriously impair local as well as systemic resistance to infection.

Notwithstanding the lapse of a half century, the records of private obstetrical practice demonstrate that the teachings of Semelweiss have not yet taken firm root in the heart and brain of the medical profession. As frequently exemplified in the lying-in room, asepsis, to borrow an expression from the French, makes one laugh and makes one—shudder. Asepsis comprehends vastly more than perfunctory immersion of the hands for any period, however short in any presumptive antiseptic solution, however feeble.

The first step in a rational plan of asepsis, and the one too often (in Sacramento, I may say generally) neglected, is the timely engagement of a competent, trained nurse. As a trained man himself, the physician should appreciate the value, nay the moral necessity, of training, and of the best training, in his chief lieutenant, particularly in so responsible an undertaking as the safe conduct of a woman thorough the perils of child-bed. An incompetent nurse is erratic and incalculable. No human foresight can forestall her vagaries or impair her infinite capacity for evil. To the traditions of our profession, which sometimes now seem traditions only, we owe it to lead and not to follow in preventive medicine. Let us see to it that by overy one of us the science of medicine is transformed, in a double sense, into an art—an art which may minister not only to our physical wants, but also to that esthetic sense of perfection which should be possessed by the physician above all other men.

Having secured a competent, trained nurse, and I say "competent" because not by any means all trained nurses are competent, the next step is the engagement of a competent physician. And here I wish not to be misunderstood. This matter is not one to be treated lightly. In all seriousness, I mean precisely what I say. The obstetrician who is not thoroughly imbued with the *technique* of asepsis should seek that desuetude which alone can make him innocuous.

Both obstetrician and nurse, whether conducting a case of labor or not, should always, as far as possible, keep aloof from septic material. The ingenuity of the physician should often enable him to do this without sacrificing his general practice. Suppurating diseases, furunculosis for instance, affecting either nurse or physician, and attendance on suppurating or infectious diseases, disqualify, the former absolutely, the latter except after a change of clothing and most thorough disinfection.

Not only the nurse and physician, but also the patient, should be kept in an aseptic condition. The virulence of the colon bacillus is probably increased by both constipation and diarrhea. These conditions therefore should be either prevented or corrected. In case of fermentation or putrefaction of the intestinal contents, antiseptics, hydronapthol, napthalin, sodium sulphocarbolate, may sometimes be prescribed with advantage. Cystitis, urethritis and vaginitis should be cured in advance of labor.

The lying-in room should be selected and prepared beforehand. It should be large, sunny, well ventilated, free from unnecessary furniture and tapestry, in a quiet part of the house and away from the possibility of infection from sinks, drains, water-closets, etc. Two weeks before the expected confinement it should be disinfected with formaldehyde and then kept closed until the patient is put to bed in labor. The bedding, with the exception of the sheets, should be left loosely open and disinfected at the same time. Sheets, napkins and towels should be sterilized by steam.

At the onset of labor the patient's bowels should be moved by a glycerine suppository. The large enema, so often advised, is likely to pass away, as it were in instalments, during labor and thus to infect the genital tract. The lower bowel having been cleared, the patient should be put into the bathtub containing several gallons of warm one per cent. lysol solution, in which the entire body should be thoroughly scrubbed with a moderately stiff brush. The vulva, anus and contiguous parts should receive special attention, care being taken, of course, not to produce abrasions. The water should then be changed and a similar bath should be given in one-half per cent. formalin solution.

The treatment of puerperal infections may be divided into systemic and local and the systemic again into specific, antagonistic, eliminative and sustaining.

Prerequisite to specific treatment is a bacteriological diagnosis, and this should be made at the outset in every case. The discharge from infected vaginal wounds and from the cervix should be submitted to the test of culture and the microscope. The result will indicate what may be accomplished, or at least attempted, by specific treatment. If a pure culture of the Klebs-Loefler bacillus be obtained the corresponding antitoxic serum should be employed with the courage born of profound conviction. It should be given freely, *coup sur coup*, as our fathers bled—3,000 units in concentrated form every six hours until positive improvement declares itself, and then as conditions require, but always boldly. The large and rapidly absorbing surface in puerperal diphtheria indicates the gravity of the disease and the necessity of prompt and intrepid attack. The successful use of this treatment in several cases has already been reported.

In streptococcic infection we are not yet able to form any positive conclusions as to the value of specific treatment. The anti-streptococcic serum has so often been administered indiscriminately that many of the records are entirely worthless, but the weight of evidence, I think, is in favor of its limited usefulness. In mixed diphtheria and streptococcus infection the mixed or combined serum is indicated. From the life history of erysipelas, I am inclined to hope a great deal from specific treatment of puerperal erysipelas, but do not now recall any experiments in this direction.

Antagonistic treatment consists of those means which fortify the normal powers of resistance to infection. Quinine, very likely, and probably iron have some influence in this way. By stimulating leucocytosis, nuclein is thought, by many who adopt the theory of phagocytosis, to be especially useful—an opinion to which my own observation, in similar conditions, inclines me. It should be given hypodermically every four hours in fifteen to thirty minim doses of the five per cent. solution.

Eliminative treatment is important and should be addressed chiefly to the kidneys. Large quantities of cool liquids serve several useful purposes—by absorbing the heat and by evaporation from the skin they reduce the temperature; by filling the blood vessels they diminish absorption from the infected surfaces and by promoting the functional activity of both the skin and the kidneys they assist in the excretion of toxic substances. In all cases they should be given freely in the form of milk, plain or peptonized, buttermilk, whey, water and mild alkaline mineral waters. Purgation is often useful, but should not be carried to the extent of debilitating the patient.

The necessity of supporting the powers of life in their defence against so aggressive and often so protracted a disease as puerperal infection, is manifest on mere statement. But these things are so familiar to us all, that, with one exception, it is unnecessary to dwell on them. That exception is the case of the digestive organs.

In every form of infection the blood is charged with toxic material, and often to such a degree that the eliminative organs break down with overwork. This we often see in diphtheria, scarlatina, and in septic processes of one kind and another, both acute and chronic. It is important, therefore, to keep the normal autointoxication within the lowest possible limits. The chief source of autointoxication which, in any considerable degree, is under our control, is the digestive canal. The products of gastro-intestinal fermentation and putrefaction often overtax the kidneys, even in conditions otherwise normal; how much more likely to do so, then, when these organs are already worked nearly if not quite to their fullest capacity by the toxins of septic origin. Indeed, we may say that gastro-intestinal fermentation and putrefaction is itself a septic process, occurring, of course, outside of the tissues, and always resulting in sapremia of greater or less degree. When this sapremia is added to that of puerperal infection the gravity of the condition is correspondingly increased. But this is by no means all. Sooner or later puerperal infection is likely to invade the peritoneum. Either through the nervous system or by extension of the septic process to the muscular coat of the intestines, peristalsis ceases, the contents of the bowels stagnate and decompose with the production of gas and tympanites; the colon bacillus and other microörganisms invade the mucous membrane of the bowel, and the muscularis, enormously distended with gas and in contact with an infected peritoneum on the one hand, and an infected mucosa on the other, succumbs irretrievably, functional obstruction sets in, and the patient is lost.

Occasionally, how often I do not know, but occasionally, I am sure, such a result may be averted by careful attention to the digestive organs, by giving only the most digestible foods in liquid form and moderate quantity, by preventing undue delay or stagnation of the bowel contents, and in suitable cases, by the use of intestinal antiseptics. On the slighest indication of peritonitis, whether local or general, or on the undue development of tympanites, stomach feeding should be suspended at once and entirely, and rectal feeding instituted in its stead. If functional obstruction, reverse peristalsis, regurgitation, and finally stercoraceous vomiting set in, the fauces and pharynx should be cocainized, and the stomach thoroughly washed out once or twice in twenty-four hours until these symptoms either abate or subside altogether. I have repeatedly witnessed the utmost relief from this procedure, and in one instance, I believe, the saving of life.

While, as I have said, the powers of life should be supported from the outset, death, in puerperal infection threatens not by inanition so much as by toxemia, and our efforts to avert the former should not invite the latter. The limits of this paper will not permit the further examination of this point, which, nevertheless, in my opinion, is worthy of most serious consideration.

In the local treatment of puerperal infection, for several years past, I have employed a method, which, founded as it seems to me, on rational principles, has, moreover, afforded results if not ideal, yet practically the best to be expected in the present state of our knowledge. During the past five years, although slightly modified in details, this method has in all essential particulars remained the same as described to-night. My experience with it, during this period, though not extensive, has, in my personal and consultation work, been sufficient to warrant tentative conclusions as to its efficiency. These conclusions, as I have just intimated, are altogether favorable.

The salient points of the method are, *seriatim*, as follows:

1. Immediate attention to the evidences of infection. With our present means, successful treatment of puerperal infection is early treatment—treatment before the superficial tissues are overwhelmed and the deep tissues invaded by the septic process, that is, while the disease is still amenable to local measures. On the slightest intimation of sepsis, therefore, and the patient should always be accorded

the benefit of the doubt, appropriate treatment should be instituted at once.

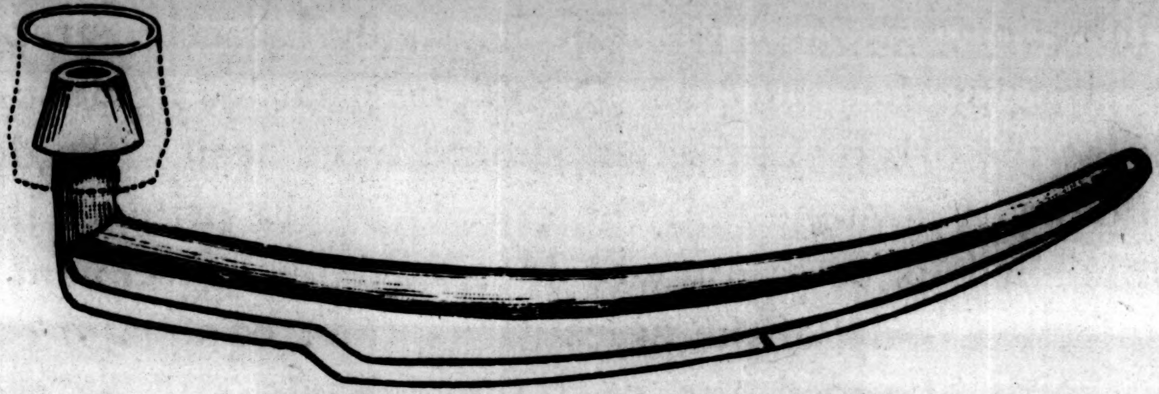
2. The most rigid observance of antiseptic precautions. Whatever the infection, whether gonococcic, staphylococcic, streptococcic or diphtheritic, further infection should be guarded against quite as studiously as the original infection should have been. To do otherwise would be to assume that the gravity of the primary infection, if not diminished, is certainly not increased by subsequent heterogeneous infection. All of the precautions, then, of a major operation having hitherto attended the case they should still be continued without the slightest relaxation. Operator and assistants, instruments, appliances and dressings, the vulva and contiguous parts of the patient and her surroundings should be prepared, and the operation itself should be conducted with the utmost care.

3. Thorough cleansing of the vagina. This is best accomplished by copious irrigation with some mild antiseptic solution—creolin or lysol may be used, although latterly I have given preference to formalin.

4 The earliest possible determination of the seat of infection. The very essence of local treatment is localization. To irrigate and thus very likely to infect a healthy uterus, would be hardly more reprehensible than to overlook a deep and septic wound of the vagina. A careful digital exploration of the pelvis, therefore, and a visual examination of the cervix and vagina should be made immediately after the first irrigation. Abrasions and lacerations should be respectively covered and packed with sterile gauze saturated with one-fourth per cent. formalin-glycerin. If there be no positive evidence of uterine infection, a small gauze tampon saturated with formalin-glycerin should be placed in the posterior fornix.

5. If decided improvement do not follow within four or six hours the preliminary disinfection and vaginal irrigation should be repeated, the patient put well over in Sim's position, the cervix seized with a volsella, the uterine drain and irrigator introduced into the uterus, the uterus irrigated first with formalin solution (1:500), and then with pyrozone until effervescence ceases. The patient should now be turned on the back until the uterus drains, and then replaced in Sim's position and the uterus filled with formalin-alcohol-glycerine, in the proportion of 1:100: 400. The uterine drain and irrigator should be left *in situ*, and the patient should remain in Sim's position as long as she can without positive discomfort—not less than half an hour in any case. This process should be repeated

every four to six hours until either its futility is demonstrated or convalescence is declared.



UTERINE DRAIN AND IRRIGATOR.

Showing above, at external end, attachment for rubber hose to irrigating tube, and below, wire brace for drainage.

6. If sufficient improvement be not manifest within twenty-four hours after the first uterine irrigation the uterus should be carefully irrigated, curetted, and again filled with antiseptic alcohol-glycerine. The curettement should be done with a medium curette. The infected uterine tissues are weakened and softened in ratio to the duration and intensity of infection, and correspondingly are more easily penetrated than the healthy tissues. The sharp curette, particularly when fenestrated, gouges out the softened tissues with unsuspected rapidity, and, to be efficient, the dull curette requires a pressure which endangers their integrity. The uterine injections should be continued every four to six hours, alternating lysol (2 per cent.) with formalin, after the first three or four injections.

7. When sepsis invades the pelvic cellular tissue, when a circumscribed exudate takes place in the posterior *cul-de-sac*, when ovarian abscess develops, when either or both of the tubes are filled with pus and are easily accessible from the vagina, a free colpotomy should be done, more often posteriorly to the cervix, and, after irrigation the infiltrated and suppurating tissues thoroughly drained. The difficulty of maintaining good drainage in these cases has led me to the adoption of several devices which have all proved more or less unsatisfactory. Recently, however, I have devised two drainage tubes which, although not tested practically, promise, I think, better results than have hitherto been attained.

8. When multiple foci of suppuration are established in the pelvis, involving both tubes, especially when these are inaccessible by colpotomy, either vaginal or combined hysterectomy should be done, thus establishing free and unimpeded drainage and removing the principal foci of infection. The burden of proof still rests with those who advocate hysterectomy in the early and advancing stage of infection. My own conviction is strongly against it.

There are three points in this treatment which in this brief exposition have not been brought out in sufficient relief. These are continuous antisepsis, continuous exomosis, and continuous drainage of the infected tissues. In defense of drainage and antiseptics nothing need be said. Their use is universal. Except in packing, however, their employment in puerperal infection has been mostly partial and spasmodic, when it should be absolute and continuous, as it practically is, by the method I have proposed.

Exosomosis as here employed is a kind of tissue drainage. In superficial infection it sweeps the *materies morbi* out of the tissues, and the coincident antiseptic endosmosis, feeble though it be, perhaps, may still have some influence in destroying it in the tissues themselves. Glycerine, by its great avidity for water, exercises a powerful exosmotic influence, draining the superficial tissues of morbific matters and by its antiseptic properties, destroying them as it sweeps them onward to the vaginal outlet. Pure glycerine is too thick to be used easily with the syringe and is therefore thinned with alcohol, which, on account of its own affinity for water, increases rather than diminishes the hygroscopic effect.

212 J street.

A REPORT OF TWO CASES OF CHOLELITHIASIS AT THE LANE HOSPITAL.

By CLINTON CUSHING, M.D., Professor of Gynecology, Cooper Medical College, San Francisco, Cal.

Read before the San Francisco Medico-Chirurgical Society.

The following cases are typical in most respects, and perhaps, are worthy of record as illustrating a method of treatment not generally adopted. That the gall bladder is not necessary to the vital functions, is evidenced in the case of the elephant, the horse, and the deer, in which animals the organ is absent. Bouchard, the eminent French writer, states that an individual secretes as great an amount of bile as urine, and that a considerable portion of the bile thus excreted is absorbed and used over and over again after its function in the intestinal canal is completed. This being true, how insignificant the amount of bile that backs up into the gall bladder, which, by becoming inspissated, forms gall stones.

CASE I.—Mrs. F——, aged 55, the mother of four children, was referred to me by Prof. Lane, during the first week in January. Her complexion was sallow and she had lost ten pounds in weight; for four years she had suffered severe pain in the region of the stomach and liver at frequent intervals, for which treatment did but little good. The feces were of a normal color, but the bowels were constipated. Physical examination developed nothing tangible in the region of the pain, and the diagnosis lay between probable gallstones and possible malignancy, the principal argument in favor of the cholelithiasis being the long continuation, 4 years; without the existence of marked growth or enlargement at the site of pain, and from the color of the feces there was no obstruction to the biliary or the common duct. The most unpromising feature being the loss in weight which might indicate the existence of malignant disease. The abdomen was opened by a transverse incision on the right side just below the ribs, and the gall bladder found contracted to the size of one's finger. It contained a row of gall stones about the size of marrowfat peas. The walls of the gall bladder were greatly thickened and dense in structure, this evidently having been caused by long continued contraction of the viscus in its efforts to get rid of the stones. The gall bladder was dissected free from the under surface of the liver, the cystic duct was ligated and the end of the divided duct whipstitched with fine catgut. On account of oozing from the liver, where the gall bladder had been dissected off, the thermo-cautery was used, a moderately firm packing of gauze was left in, and the abdominal wound closed in the usual way. The gauze was removed on the following day. There was but little shock or pain following these procedures, and no untoward symptoms until the eighth day, when a free discharge of bile occurred from the abdominal wound, at the site of the former gauze packing. This was unaccompanied by pain or fever, the connection between the peritoneal cavity and the site of the operation having evidently been cut off by the peritoneal adhesion set up by the presence of the gauze. A small, self-retaining drainage tube was inserted to provide free outlet. At the present time there is a slight discharge of bile and mucus, and the general condition is satisfactory. Judging from my former experience with similar cases, the biliary fistula will soon heal and the patient be fully restored to health. She is now out of bed every day and complains of no pain.

CASE II.—Mrs. M——, aged 23, no children, one miscarriage 2½ years ago. The symptoms for which she applied for relief were severe and intolerable pain in the region of the right ovary and in the epigastrium, leaving afterwards a marked soreness about the site of the gall bladder. These attacks of pain were followed by a profuse discharge of stringy mucus from the rectum. Nothing but heroic doses of morphine, subcutaneously, gave any relief. The diagnosis was salpingitis and ovaritis, the pain about the epigastrium being probably reflex. The abdomen was opened above the pubes, and the right ovary and tube removed. The ovary was enlarged, cirrhosed, and cystic. The tube was enlarged and of a dark red color, with two well developed cysts of the fimbriated extremities. The left ovary and tube being in fairly good condition, were not disturbed. The convalescence was uneventful except for the occurrence of severe pain of a paroxysmal character in the region of the liver and stomach, requiring full doses of morphine for relief. There was no fever and but little pain at the site of the operation. At the end of three weeks recovery from the operation was complete, but the pain about the epigastrium continued. From the severity and the character of the pain, the diagnosis of cholelithiasis was now made, and the pain which had been looked upon as reflex, decided to be due to gall stones. I might here say that while the patient was under the anesthetic, an examination was made of the rectum with Kelly's rectoscope, and she was found to be suffering from well marked proctitis. For this she was afterwards given daily rectal enemas of 6 ounces of thin cold boiled starch water, containing a teaspoonful of subnitrate of bismuth and 20 drops of McMunn's elixir of opium. This treatment soon removed the troublesome symptoms. Three weeks after the first operation, the abdomen was again opened as in the former case. The gall bladder was found slightly enlarged and so greatly distended that it felt like a piece of wood. It was of a dark red color. Several stones could be made out in the cystic duct by palpation with the thumb and finger. The fluid contents, consisting of mucus tinged with bile, were withdrawn by means of the aspirator, and the gall bladder removed as in the first case. Recovery was uninterrupted and she is now out of bed, and free from fever and pain.

I regret that the specimens have been mislaid, and that I am unable to present them for inspection. The first was a good example of an atrophied gall bladder due to loss of function. The second was a fair sample of an overdistended bladder being unable to empty itself, the effort to do so being attended with intolerable pain, and the walls were already becoming thickened from the inflammation and contraction.

The diagnosis in these cases is not always easy. Unless the patient is very thin or the gall bladder much enlarged, it cannot be felt by palpation. And one must be governed in most cases by the character of the pain, the general history of the case, and the discovery of the stones by washing the fecal discharges carefully, for a week after each attack. At the present day the risk of the operation is not great, in the hands of skilled men, and should be advised when the pain is severe and the health is seriously at stake.

Since the gall bladder is not at all essential to the health or well being of the individual, it would appear to be better practice to remove it at once, instead of leaving it for another accumulation of stones. In that respect it being somewhat like the appendix vermiformis.

Since I began this kind of work, twelve years ago, I have removed the gall bladder in all cases that I operated for, except the first, in which I drained. The patient recovered, but more stones formed, and the gall bladder was subsequently removed by another surgeon.

To Prof. Langenbuch, of Berlin, we are indebted for the plan of

removal. If an irremovable obstruction exists in the common duct, the gall bladder should be opened into the pylorus, in order that the bile can pass into the intestine.

636 Sutter street.

CONGENITAL MALFORMATIONS OF THE ANUS AND RECTUM, WITH A REPORT OF TWO CASES.

By R. F. Rooney, M.D., Auburn, Cal.

Read before the California Northern District Medical Society.

Cases of this nature are so rare that when met with they should be recorded. Statistics from some of the great lying-in hospitals of Europe, gathered by Ball in his work on "Diseases of the Rectum and Anus," show that there are about three cases in nearly 70,000 deliveries, or an approximate ratio of 1: 23,000. From this it may be seen that but few obstetricians, even in large city practice, will meet with even one case in a lifetime, whilst thousands live and die without seeing any. I feel, therefore, that two cases are more than my share, and I, consequently, desire to record them.

Congenital malformations of the anus and rectum constitute a most interesting class of deformities, and, although so rare, should be studied with care by all medical men, because in many cases the life of the child depends upon the promptness of the aid given. The great majority of all children are born to poor parents, and, in the country especially, these cases must be dealt with by the attendant, as there is neither time nor money to be spared to obtain the surgical expert, if such there be, in this abnormity.

These malformations result from arrested development in early embryonic life. The length of this paper prevents a full explanation of this, although it is one of the most interesting points in embryology. Suffice it to say that the entoderm, or vegetative layer, which starts as a groove on one side of the complete germ vesicle, and which goes on to form a simple tube, or the mesenteron, in the first stages of development of the embryo, terminates in a blind pouch, which, instead of going on to perfected development, is arrested at that stage, and either remains a blind pouch or else, owing to a similar arrest of development in the perineal septum, allows the rectum and genito-urinary organs to have a common orifice.

Bodenhamer, whose classification is adopted by nearly all authors, divides these malformations into nine groups:

1. Congenital narrowing of the rectum or anus without complete occlusion.

2. Complete occlusion of the anus by a membranous diaphragm or by well-formed skin.

3. The anus is absent, and the rectum ends in a blind pouch at a point more or less distant from the perineum.

4. The anus is normal in appearance, but ends in a *cul-de-sac*, and the rectum ends in a blind pouch at a variable distance above this point.

5. The anus is absent, and the rectum ends by a fistula at any point of the perineal or sacral region.

6. The anus is absent, and the rectum ends in the vagina, bladder or urethra.

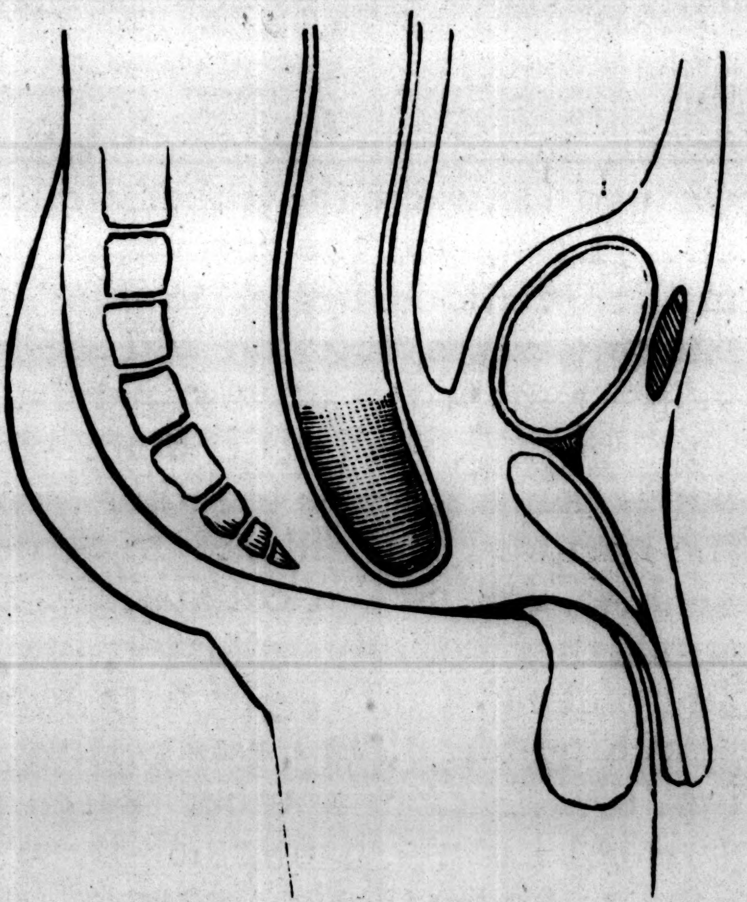
7. The anus and rectum are normal, but the ureters, vagina, or uterus, open into the rectal cavity.

8. The rectum is totally absent.

9. The large intestine is totally absent.

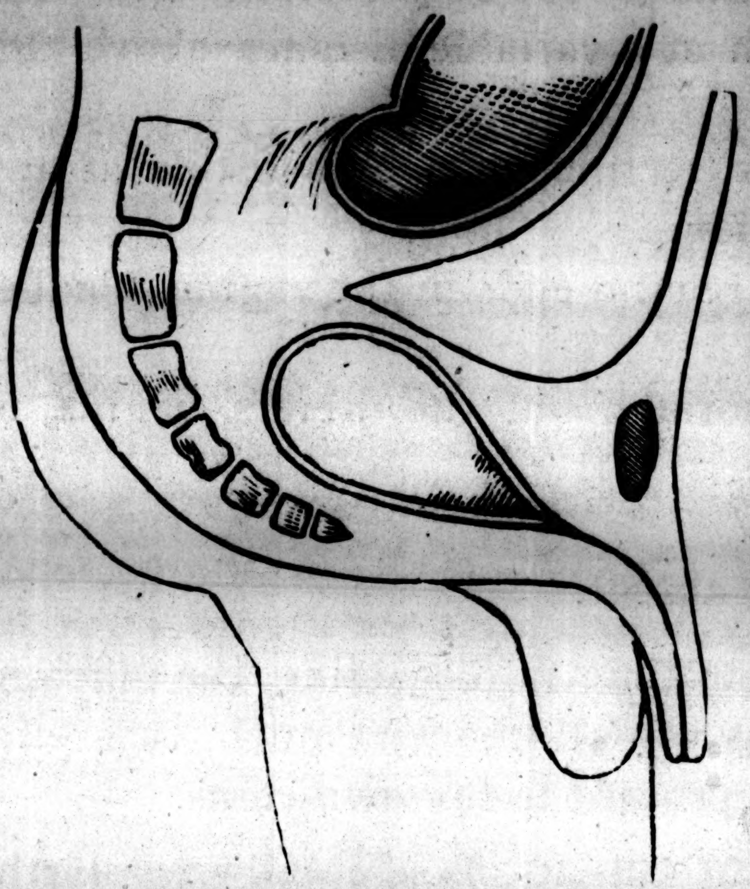
I do not propose to occupy your time in discussing the different varieties of these malformations, as you all know as much, theoretically, as I do about them, but will proceed to my own cases.

CASE I. Male, white, American parents, first child, easy birth; parents robust, healthy and well formed. Child was delivered by a midwife, who washed and dressed him without noticing anything wrong. On the following day she changed his napkins without discovering anything abnormal. On the third day the child was fretful and seemed in pain, and, as he had passed nothing from his bowels, the father came to me. I visited the child, and whilst observing him I saw that he was straining quite hard, and told the nurse that in all probability the bowels were then moving. She said that he had been acting in that manner for some hours, but had had no motion. In confirmation of the fact she stripped the napkins from the child and turned his hips up, when I at once saw that the anus was bulging, but impervious. The woman's sight was poor and she had overlooked the condition. I made a crucial incision over the distended pouch, when the meconium poured out and the child was at once relieved, and was perfectly healthy afterward. This case belonged to group 2 of Bodenhamer's classification and was one of the simplest we meet with.



CASE I.—Showing rectum, ending in *cul-de-sac* above perineum.

CASE II. Perfectly formed male, large and healthy looking, white, American parentage, mother healthy, father tuberculous; second child, easy birth, delivered by midwife. Was washed and dressed without discovery of the malformation. On the next day the nurse, in changing the napkins, found a complete absence of any sign of an anus. Dr. C. D. Ware was called in and at once telegraphed for me. Upon examination the child was found to be large and healthy looking, and perfectly developed in all its parts, with this one exception. There was not even a pigmentation of the skin, or a dimple, where the anus should have been. The tuber ischii were very close together, and the floor of the pelvis seemed unyielding. It looked like a very unpromising case, and I recommended colotomy to the parents, who would not listen to the suggestion. I then proceeded to operate, and, upon cutting down, found the coccyx elongated, curled forward and tightly wedged between the tuber ischii, forming a bony floor to the pelvis. I removed the coccyx, as recommended by Verneuil, and then my tribulations began to pile up. Upon referring to the accompanying engraving you will see that the coccyx curls forward much more than in the normal pelvis; also, that the bladder is displaced and lies back in direct contact with the coccyx and the sacrum. The bones being so close together I could barely force my finger through the opening, and all had to be done by touch. I first met with the bladder, and its soft collapsed walls were hard to distinguish from the pouch of a rectum. After getting a portion of its walls into the wound and pulling it into sight with forceps, I found it was not what I was searching for. Time was getting precious, for the child was weakening, and I began another search for the missing gut. At last I was satisfied I could distinguish it, so high up that I could scarcely reach it with the tip of the finger. There was a complete absence of the fibrous cord which usually connects the end of the pouch and the seat of the anus, and I had nothing to make traction upon. I therefore had to pass a pair of long forceps up by the side of my finger and make blind efforts to secure the gut. After three or four attempts, I succeeded, and pulled the distended gut down into sight with ease. I stitched it carefully to the edges of the wound with fine sutures, opened the pouch, and was gratified by a free discharge of the meconium The child rallied well after the operation, and gave promise of living, but after a few days it began to fail, and died about


CASE II.—Showing elongated coccyx projecting forward, with displaced bladder above, and rectum ending in *cul-de-sac* high up in pelvis.

three weeks after the operation, having had almost natural passages during all that time.

Strange to say, it never passed urine *per vias naturales* after the operation, and, as no autopsy was held, the cause of death remains obscured by doubt. It did not die of peritonitis, nor from the effects of the operation. Did I injure the ureters in my efforts, or was there congenital malformation of the urinary organs as well as of the rectum? I cannot tell. No man can ever become very skilful in such cases, because they are so rare that probably my two cases are as many as will fall to any surgeon during his life.

The form of procedure adopted in this case is that which receives the best endorsement by modern surgeons, and, barring some modifications recommended by Vincent, when the bowel refuses to come down without great traction, is that which should be adopted, as giving the best results. If the gut cannot be reached through the perineum, and the consent of the parents can be obtained, then open the large intestine in the groin. In case you ever have to operate through the perineum, remember this one point, and keep it ever in view: *Keep close to the sacrum*, then you will be sure to do the least harm.

AN ADDRESS

Delivered at the Organization of the Kern County Medical Society, November 4, 1897.

By R. A. FERGUSSON, M.D., Bakersfield, Cal.

Gentlemen: It affords me pleasure to make known to you the high esteem in which I hold the honor of being chosen the first President of the Kern County Medical Society. I take it to be a favorable opinion expressed on the pleasant relations which have hitherto existed between the members of the local profession and myself, and certainly not to any special qualification of mine to fill the office. In thanking you I promise to use my best endeavor for the good of the Society.

To me it seems that the work of this Society will be most beneficial to the local medical men, and to the people amongst whom they practice. Beneficial to us in that it will promote the spirit of good-fellowship for one another, enthusiasm for knowledge, devotion to our science, and jealous regard for the honor of our profession. Beneficial, that by attrition of ideas the rust of isolated practice may be rubbed from the machinery of our daily work. Beneficial, that by coöperation we may better enforce our righteous dues from the public and from the commonwealth. The masses of the people expect to pay and do pay the doctor, but with a certain class of delinquents it is a common occurrence to discharge the old and to obtain a new doctor whenever remuneration for services rendered is sought. The State, county, or municipality is also manifestly unjust in compelling a medical man to give up his technical knowledge—his means of subsistence—without rightful compensation.

The untiring and self-sacrificing labor of our profession toward the prevention of the very source of its income and livelihood we freely give for the public good. Liberality to the sick poor is our honorable prerogative. Yet, "the laborer is worthy of his hire," and only by unity can we compel the yielding to us by the commonwealth, or by delinquent individuals, of our just claims.

By our discussions of papers we may, or we may not, gain new knowledge, but we shall greatly aid the digestion and the assimilation into our minds of that knowledge which we possess. There is not a member present who has the complete perception of medical and surgical lore to be found in our advanced literature, yet I verily believe that one or two hours spent in the discussion of a subject will give us a brighter view of that subject, and a keener desire for further knowledge, than the same time spent over a most learned treatise when the brightening element of friendly disputation is wanting. The practitioner, away from large hospitals and from the centers of medical learning, who depends wholly for mind-food on his reading and on his own observations, often becomes a medical silurian and a mental miser. He loses that practical ability to quickly see the conditions and circumstances of a case in the bright light of medical progress, which is so essential to the success of the physician of to-day. His mind becomes narrow and intraspective.

To the honor of the profession, be it said, there are but few self-sufficient practitioners who prate much in their own favor and make unwarrantable pretentions, forgetting that whatever knowledge they possess is, for humanity's sake, the property of every physician, and, in justice, belongs to that profession, which so generously endows its members with its wealth of wisdom. These men hold themselves superior to local societies for medical improvement, looking upon it as folly to give away to their business rivals their supposedly superior and profounder knowledge and their little intrigues and artifices.

This local association of physicians should be beneficial to the public, not only as better qualifying its members to serve the sick and conserve the public health, but in its ability to carry on a campaign of education against much advertised quackery, and to help the community to discriminate between the practice of scientific medicine and the assumptions of empirics and impostors. It can also render an important service by stringently applying the laws of the State to repress the ignorant and unlicensed pretenders, who, with brazen face, clarion voice and base insinuation, for fraudulent avarice, prey upon the people.

It is the Christ-like tradition of our profession that we labor for the good of humanity, and the highest reward for our labor is the conscientious feeling that we have lessened suffering and distress. We owe this duty to the confidence placed in us by our fellowmen—that we lose no opportunity of perfecting our knowledge of disease to the utmost of our abilities. The societies for medical improvement are amongst the best of recognized opportunities. Kern county may be congratulated that her physicians have responded so numerously to the call for the formation of a local society for medical improvement, and the sincere thanks of her physicians are due to those gentlemen who inaugurated the movement.

SOME FEATURES OF TABES DORSALIS AS ILLUSTRATED BY CASES RECORDED AT THE NEUROLOGICAL CLINIC OF COOPER MEDICAL COLLEGE.

By Frank Fischer, M.D., Assistant at the Neurological Clinic, Cooper Medical College, San Francisco.

Read before the San Francisco Medico-Chirurgical Society.

In the records of the neurological clinic of Cooper Medical College are recorded the histories of a considerable number of cases of tabes dorsalis. In this disease there are several questions that may be regarded as still *sub judice*. And it is the purpose of this paper to determine what bearing the facts recorded in these clinical histories, and collated therefrom, may have on the questions referred to.

In the first place, our knowledge of the etiology of this trouble is by no means complete. Of the exciting cause of the affection, we have no positive knowledge. At least, this must be conceded unless we accept the dictum that the various factors supposed to favor the degenerative changes characteristic of tabes are sufficient to produce such changes without the intervention of any other factor.

There are some authorities, it is true, who seem inclined to assume this ground. Nageotte,[1] for example, has studied the pathology of a number of cases of general paresis, tabes, and spinal syphilis, with reference to the character of their respective lesions. He concludes that in each of these there are certain inflammatory changes of a chronic character; that the nature of the process is the same in the three diseases, and that the three separate clinical pictures are due merely to the preponderance of the inflammatory process in certain locations. Moreover, Fournier places the percentage of syphilis in tabes as high as 98, Sachs at over 90, and Erb[1] at 90 per cent. Furthermore, Strümpell[2] inclines to the view that syphilis is the most potent, if not the only effective, factor in the production of tabes. He found a previous history of syphilitic infection in 61 per cent. of his cases; and when he included those that were doubtful, *i. e.*, those in whom a venereal sore had occurred, but without secondary manifestations, his percentage rose to 90. As a consequence of these observations, he leans very strongly to the theory of syphilitic origin. More than this—although he is constrained to admit that "provisionally it cannot be questioned that there are also cases of ataxia, where we cannot discover a former syphilitic infection"—he appears to contend that syphilis, where it has previously occurred, is *per se* an adequate causal explanation of tabes. He adds, "the theory that syphilis excites merely an increased predisposition to the disease, seems * * * to mean absolutely nothing."

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[1] Medical Record, January 25, 1896.

Strümpell's attitude upon this point is radical. It probably does not represent the concensus of opinion among neurologists. Peterson[3] dwells, in this connection, with fitting stress upon the well-established proposition, that specific treatment has no effect whatever upon true cases of tabes with a previous syphilitic history. He emphasizes the proposition that the malady is not a syphilitic disease—not a direct sequel of syphilis. And his conclusion, which, in view of this argument, is more plausible than Strümpell's, is that the venereal disorder prepares the constitution like a cachexia for the development of the degenerative process.

Recent investigations have tended to cast still further discredit upon the prevailing impression as to the potent influence of syphilis in this connection. Pitres[4] has made extensive researches in the hope of throwing light upon this point. His conclusions are based upon an observation of 225 cases. Although the influence of syphilis was found to be great, it was, as he observed, by no means in keeping with previously accepted ideas on the subject. There were 125 cases—*i. e.*, 55.5 per cent.—in which the previous occurrence of syphilis was certain. Even in many of these cases the syphilis was associated with other causes of tabes dorsalis, as hereditary joint affections, alcoholism, sexual excess, etc., so that the exact percentage that could safely be attributed to syphilis was reduced to 22.33. Of the other patients, about 33.44 per cent. had no sign of previous syphilis.

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[1] American Medico-Surgical Bulletin, August 15, 1896.

[2] Text-Book of Medicine, pp. 596, 597.

[3] Dercum's Nervous Diseases, p. 633.

[4] Medical Record, October 12, 1895.

Recently Storbeck has published some statistics derived from the histories of 108 cases of tabes in the hospital and private practice of Professor Leyden. Twenty-two of these were syphilitic, 23 had doubtful histories, and in 63 syphilis could be excluded. If one-half of the doubtful cases were really syphilitic, the result would be 30.6 per cent. Commenting upon this, Storbeck remarks that the relation of the two diseases does not seem to him established.

There is another argument that is deserving of consideration as seemingly opposed to the universal application of the syphilitic theory. It is the fact that syphilis may occur in the course of a case of tabes dorsalis, the former affection making its appearance *after* the latter. Now, if we grant, as we must, that a second infection with syphilis is very rare, it must follow that it is also very probable that the cases of tabes in which syphilis subsequently develops are not due to syphilis. To make them syphilitic in origin, we must presuppose two attacks of syphilis in all such individuals. Among our cases, there was one such, in which the chancre and the secondary symptoms occurred after tabes had developed. Sachs has reported a similar instance of typical tabes, in which, on *post-mortem* examination, a more recent syphilitic process was found superimposed upon an old typical sclerosis. Knapp mentions a case of probable syphilitic lesion of the cord being added to tabes of two or three years' standing. In the paper already referred to, Pitres notes that twice in his own experience, he has seen tabetic symptoms precede syphilitic manifestations. It thus appears that such cases were not particularly uncommon.

Syphilis is made the scapegoat of so many otherwise unexplained conditions, that, whenever opportunity offers, the effort should be made to verify or disprove the genuineness of its influence. This should be done, if for no other purpose, at least to clear the ground for the discovery of the true cause of such conditions. It is with this thought in mind that our clinical histories have been examined upon this point. There were found in all 42 cases of tabes dorsalis recorded. Of these only 7 gave a previous history of chancre, followed by the secondary manifestations of syphilis. This would be a percentage of 16.66—a very small proportion as compared with the figures usually given. This, however, represents only those in whom the previous occurrence of genuine syphilis was indisputable.

Of the cases in which a venereal sore had occurred, without the secondary manifestations of syphilis, there were 21 instances.

The question here arises, are we justified in imitating certain authors and in classing these as "probably syphilitic," thus swelling our percentage. There is a temptation, in such investigations, to follow the lead of the authorities, and to read between the lines what may, perhaps, not be there. In a similar discussion upon the causation of general paralysis, Hirschl[1] found that 56 per cent. of 175 cases furnished positive evidence of previous syphilitic infection, and that in the remaining 44 per cent. of the cases, the syphilitic history was doubtful or entirely negative. Nevertheless, he reaches the conclusion, to his own satisfaction, that general paralysis is *always* of specific origin. This he does upon the basis that, in his experience, but 54 per cent. of the cases of late syphilis give a definite syphilitic history. Hence he believes he is warranted in presupposing syphilis even in those cases of general paralysis that give no such history.

If this conclusion were warranted, upon this basis alone, in the case of general paralysis, it would be equally warranted in the case of tabes dorsalis. But the logic of this train of reasoning is not as convincing as it might be. Between the possible and the probable or the certain, there is a chasm that cannot be bridged over by inferences based upon analogy. For there is a danger that this method of reasoning may lead to conclusions that are wholly erroneous. It is possible that some of our 21 cases, though they gave no history of secondary manifestations, may have had syphilis. But upon the strength of the possibility we are scarcely warranted in placing them in the same category with the others.

We may, therefore, group our cases as follows: 7 with a previous history of syphilis; 21 with a previous history of venereal ulcer, but not of secondary manifestations; and 14 with no previous specific history. If we do not include the doubtful cases as syphilitic, then syphilis would not appear to be as potent or as universal a factor in the causation of the disease as is generally believed.

There are other points of interest with reference to the connection of the two diseases. For example, it would be desirable to determine how long after the occurrence of the initial lesion of syphilis, the nervous affection may manifest itself. In our cases, this period varied very widely, ranging all the way from a few months to 26 years. In those cases with undoubted previous syphilitic history, the shortest interval betwen the two events was two years, and the longest 26 years. In the cases in which there was a record of only the venereal ulcer, the shortest interval between that and the first tabetic symptoms was a few months, and the longest 25 years. In the former group of cases, the average interval was 12½ years; in the latter, about 10 years.

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[1] American Medico-Surgical Bulletin, June 26, 1896.

If, then, we should conclude that the cases exhibiting none of the secondary manifestations of syphilis were, nevertheless, genuinely syphilitic, we should also be warranted in believing that such cases are more prone to attack by tabes dorsalis; that the less severe the character of the syphilitic symptoms, the greater the probability of the development of the nervous disease. Or, if the facts do not quite warrant this conclusion, they may be construed as implying that the less severe the symptoms of syphilis, the shorter is the interval between it and the appearance of the first symptoms of tabes. These conclusions are all based upon the proviso that we be permitted to consider the doubtful cases as true syphilis. As to the legitimacy of the latter assumption, that question has already been discussed. Strümpell states that in most cases of tabes the previous syphilis has not had a great intensity, but all of his conclusions are somewhat weakened, as has been shown, by his assumption of the almost universal adequacy of the syphilitic theory.

Another item that would be of value from a therapeutic, or at least from a prophylactic, standpoint, would be contained in the answer to the question, Is the appearance of the nervous affection prevented, or hastened by a thorough course of antisyphilitic treatment? That is, are cases in which antisyphilitic treatment is neglected, or only imperfectly administered, less or more likely to be followed by the development of tabes? Unfortunately, there was no systematic record kept in our cases, to throw light upon this question, and the only data at my disposal from which to draw a conclusion are my recollection of the facts, as elicited from such of the patients as came under my personal observation.

In these, as far as memory will serve, the longest period during which constitutional treatment was persisted in was a year; and this was exceptional. As a rule the treatment had lasted but a few months before it was discontinued. This might be construed as implying that inadequacy in the antisyphilitic treatment favored the subsequent development of tabes. But, in the first place, the facts are not sufficiently certain to warrant a positive conclusion, and, secondly, it would require a much more extensive series of cases in which the syphilitic element was unimpeachable to justify the enunciation of a general proposition. If, in such a long series of cases, it should be found that there were none, or very few, that had continued the antisyphilitic treatment for the full term recommended by syphilographers, the conclusion that has been suggested, and that does seem plausible, might be accepted.

This question is the more worthy of investigation because at present we have no very satisfactory treatment of tabes dorsalis. We can do very little in the cases that are fully developed. If we succeed in checking the progress of the disease, or, to put the proposition more truthfully, if the disease ceases its advance while we are going through the dumb show of administering the traditional therapeutic agents, we have reason to congratulate ourselves. In the absence, then, of any efficient method of treatment or cure, it is desirable that the causal factors be clearly ascertained. In this way, while we may have gained nothing for the amelioration of tabes dorsalis as such, we may still discover a means of lessening the number of its future victims.

In order to be just in our verdict as to the efficiency or inefficiency of syphilis as a causal element in the production of tabes, there is one point that must not be ignored. We must ascertain whether in our cases there existed other causes to which the disease is commonly attributed. In three of the seven cases having a previous syphilitic history, there were noted other commonly recognized etiological factors. In one there had been excessive indulgence in sexual intercourse, and also exposure to damp and cold. The second had likewise been much exposed to inclement weather, and while at work his clothes had frequently been drenched with rain. The third had had, previous to the first symptoms of tabes, an attack of *la grippe*. This, with its well-known tendency to nervous affections, both synchronous and as sequelæ, may safely be classed with the other acute diseases that are believed to predispose to tabes. This leaves only four of our cases, or less than 10 per cent, in which the syphilitic etiology may be regarded as not open to debate.

Of the remainder of our histories there are only seven that contain the record of other possible causes. In one of these there was a general neurotic taint in the family; three others had been much exposed to damp and cold; one had had a previous attack of acute articular rheumatism, and another of *la grippe;* while one had been subjected to extreme over-exertion just previously to the development of tabes.

With reference to the symptomatology of tabes dorsalis, our cases have been examined more particularly for the purpose of ascertaining the initial symptoms of the trouble. In 11 cases the disease began with lancinating pains in one or both lower extremities. In 13 cases, the first symptom was some difficulty in locomotion. This was variously described as a sense of weakness in the legs or knees, a stiffness about the knees, or an incoördination of the movements of the muscles involved in the act of progression. A third class, including 12 cases, began with numbness in various parts of the body, generally the lower extremities. In one, however, the numbness began in the hands, in another in the perineum and scrotum; in the remainder, in the feet, legs, or thighs. There were two in which the initial symptoms were located in the rectum. One of these had a constant feeling of "fulness in the rectum," and the other had frequent inclinations to movement of the bowels without actual movement, this being associated with simultaneous painful erections. Finally, there were three cases in which the first symptom was a failure in vision.

An examination of this list of initial symptoms reveals one or two facts deserving of further consideration. In a number of the cases it will be noted that the histories are inconsistent with the usual artificial division of tabes into several stages. In those cases in which the disease was ushered in by difficulty in locomotion, in consequence of ataxia, there was, of course, no preataxic stage.

It will be observed that there were three cases in which the first symptom was a failure of vision. This failure of vision in tabes is, of course, due to the optic atrophy that constitutes, in a considerable proportion of the cases, a prominent symptom of the trouble. The point of interest with reference to this symptom is that the claim has frequently been made, more particularly of late, that an initial, or an early optic atrophy, exerts a postponing influence upon the development of the other symptoms of tabes dorsalis. This, it has been claimed, is especially true of ataxia and pain, which it is asserted will not occur when optic atrophy is present early in the course of the disease.

In a recent article upon this subject, Bailey[1] inclines to take a less positive stand than that assumed by some authors. He submits a summary of 12 cases to show that in nine the early development of optic atrophy had an apparently inhibitory influence upon the evolution of the disease, especially as regards pain, "which either developed not at all, or was slight, or became less severe when the atrophy began." In three of these nine, ataxia failed to develop, but was present in the rest, and in some was very marked. But, three of the cases, as he pointed out, demonstrated very positively that tabes dorsalis may develop in its characteristic form in spite of optic atrophy as the initial symptom.

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[1] Medical Record, November 14, 1896.

Bailey's conclusion is that in about 75 per cent. of the cases of tabes in which optic atrophy is an early symptom, some of the other tabetic symptoms may be late in appearing, or may not develop at all; that this is especially the case in respect to the lancinating pains and the incoördination of movement; and that the loss of knee-jerk in such cases is very common. He adds, however, the qualification that the most distressing symptoms may develop simultaneously with or may immediately succeed the blindness.

Among our own cases, there were four in which the failure of vision was the initial symptom, or it occurred very early in the course of the trouble. In the first of these the optic atrophy was the first symptom, and was followed soon by ataxia in the gait, although the lancinating pains did not develop until a year later. The second case began with lancinating pain, soon followed by optic atrophy in both eyes. A year and a half later there was no locomotor ataxia, nor was Romberg's symptom present. The third case began with the failure of vision; and a year and a half later incontinence of urine had appeared and the gait had become ataxic. In the fourth case, atrophy of both optic nerves constituted the initial symptom. Within a year this had been followed by incontinence of urine and lancinating pain; but no ataxia had developed at the end of that time.

Summarizing the four cases: In two, ataxia had failed to develop at intervals, respectively, of a year and a year and a half after the appearance of the optic atrophy; of the remaining two, ataxia had followed closely upon the optic atrophy in one, while in the other it had developed at the end of a year and a half. With regard to the lancinating pains, in one case they preceded by a brief period the advent of the optic atrophy; in two they followed within a year; and in the fourth they had failed to appear at the end of a year and a half.

Our cases are, therefore, of value, merely as confirming the last portion of Bailey's conclusions. Benedikt had previously claimed that an initial optic atrophy invariably exerted a postponing or an ameliorating influence upon the other symptoms of tabes. Our cases, and three of those of Bailey, show at least that this is not invariably the case; that, in fact, the ataxia and the pains may follow close upon the optic atrophy.

Reviewing the foregoing, the following conclusions may be drawn:

1. It is probable that the influence of syphilis as a cause in the production of tabes dorsalis has been largely overrated.

2. If cases presenting a history of a venereal ulcer, but of no secondary manifestations, are to be regarded as syphilitic, then the less severe the character of the original syphilitic symptoms, the more prone is the individual to a subsequent attack of tabes dorsalis, and the shorter is the interval between the appearance of the two maladies.

3. Where syphilis has preëxisted, it is probable that inadequacy in the antisyphlitic treatment predisposes to tabes.

4. The early appearance of optic atrophy may imply a late development of the symptoms of ataxia and pain, but this is not invariably the case.

143 Powell street.

THE RADICAL VAGINAL OPERATION FOR BILATERAL DISEASE OF THE OVARIES AND TUBES.

By W. F. B. WAKEFIELD, M.D., Oakland, Cal.

Read before the Alameda County Medical Society.

When I speak of the radical vaginal operation for bilateral disease of the ovaries and tubes, I mean the removal of the uterus with the diseased adnexa *per vaginam.*

The purpose of this paper is twofold. First, I desire to point out the advisability of always removing the uterus as well as the appendages in bilateral disease. Second, I wish to commend the vaginal route as being preferable to the abdominal whenever it is practicable, and the cases wherein the vaginal route is not practicable are very few.

In probably ninety-nine cases out of a hundred, the septic material that produces our cases of pyosalpinx, finds its way to the tubes through the uterus, and, with the possible exception of tubal disease resulting from direct traumatism, the uterus is always infected as well as the adnexa. To remove pus tubes and leave behind a septic uterus, is equivalent to performing an incomplete operation. The uterus deprived of its adnexa is functionless and useless, besides which its presence in the pelvic cavity is a positive menace to the patient's future health. How often do we find pelvic abscesses follow in the train of our most carefully performed oöphorectomies, and why? A septic focus—the infected uterus—has been left behind, and our patient's condition is very apt to be more deplorable than before our operation.

The following case will illustrate my position very clearly:

Miss W—— sent for me. I found her suffering from an acute pelvic inflammation. She gave a history of several similar attacks. When I had succeeded in overcoming the acute stage, I made an examination under chloroform and found a large conglomerate mass on the left side about the size of a man's fist, which I diagnosed as an old pus tube plus the agglutinations resulting from repeated inflammatory attacks. The right tube was somewhat enlarged and the right ovary enlarged and cystic. I recommended operation, and the operation verified, in every respect, my diagnosis. I removed the adherent inflammatory mass with considerable difficulty, but without rupturing it, and also removed the enlarged tube and cystic ovary on the opposite side, but did not remove the uterus. The operation was conducted under the strictest aseptic precautions; not a drop of pus was allowed to enter the pelvic cavity, the stumps were thoroughly cauterized, and I thought I had every reason to expect an uninterrupted recovery. I was doomed to disappointment, however, for, about two weeks after the operation, the patient developed a persistent fever, with high pulse and delirium. I could not feel anything in the pelvis to account for the trouble; nevertheless, to assure myself, the patient was anesthetized and I made an opening in the posterior *cul-de-sac*, and thoroughly explored the pelvic cavity, with negative results. I then dilated the cervix, and curetted the uterus, removing a considerable quantity of foul-smelling muco-pus, and disinfected the cavity as well as I could. After this the temperature fell and the patient recovered, after a fashion, and passed out of my hands. Several months later her sister wrote me that a large abscess had formed in the pelvis, and had broken into the rectum, and that she had been in a wretched condition.

I am satisfied that had I removed the uterus with the adnexa at the primary operation, and drained thoroughly *per vaginam*, I would have saved the patient all the trouble she has since had. This case is exactly illustrative of the condition I had in mind when I commenced this paper, and I believe in all such cases we should remove the uterus as well as the diseased adnexa. I know we do not always have unfortunate results, even when we leave the uterus, but I can see no good reason for leaving a perfectly functionless organ in any case, and especially when we know that the mass of tissue remaining is almost certainly septic.

It is argued by some that we should leave the uterus, or at least the cervix, because of the support it affords, and thus lessen the danger of a vaginal hernia. I think this danger is a theoretical one, and in studying the record of nearly 200 cases, I cannot find that a vaginal hernia has ever occurred. In fact, if the case has been properly treated, I cannot see how such a thing could occur, for we well know that a broad firm cicatrix forms at the posterior part of the vagina, which gives adequate support to the small intestines, and which, instead of becoming weaker as time goes on, becomes stronger and more resistant.

I now come to my second proposition, viz., that the vaginal route is, in nearly all cases, preferable to the abdominal. Montgomery, of Philadelphia, enumerates the advantages of the vaginal route as follows:

1. It permits us to explore, treat, and preserve organs which would otherwise be sacrificed.

2. It promotes drainage from the most dependent portion of the pelvis and enables the large peritoneum to be protected by plastic barriers.

3. It enables us to remove the uterus and appendages with less danger and more subsequent comfort than if the abdominal incision had been practised.

4. The adhesions which nature has provided to protect the vital organs are undisturbed, and there is less likelihood of subsequent obstructive symptoms.

5. Convalescence is shorter, and the patient avoids such annoying sequelæ as abdominal sinus, painful cicatrix, weakened ventrum, and ventral hernia.

To these advantages may be added the facts that there is much less shock where the vaginal route is chosen, and also, that many patients will submit to an operation *per vaginam* who cannot be persuaded to have the abdomen opened from the outside.

I know that many good men will still express a preference for the abdominal route, but I cannot help feeling that their preference is due to their larger experience with it. Had they performed as many vaginal as abdominal operations, I believe their opinion would undergo a change.

But, questions some one, are not the space and light limited? I reply that the vagina is a very dilatable canal, and with a little patience the surgeon, with his hand formed into a cone, can, in a few moments, dilate it sufficiently to admit the fist, and with this amount of dilatation the light is ample. If, when you enter the pelvic cavity, you decide that you would like more room to manipulate the adnexa, it is an easy matter to clamp the broad ligaments close to the uterus and to remove that organ, after which plenty of room is afforded for all necessary manipulations. In most cases traction on the clamps which compress the broad ligaments will bring the adnexa into view, when they can be ligated or clamped off, according to the surgeon's preference.

But, asks another, have we command over hemorrhage in the vaginal method? We have all the control necessary. It must be remembered that during the operation an assistant is holding the bladder and ureters up out of the way by means of a lateral vaginal retractor, thus materially increasing the space. Other retractors can be used laterally, if desired, to still further enlarge the field of vision, and with the space thus afforded, the parts can be sponged thoroughly and the bleeding point or points detected. I may mention that whenever there is troublesome hemorrhage we should carefully examine the posterior vaginal wall, as this is very frequently its source, being supplied by branches from the uterine artery which are not included in the clamps which secure the main vessel.

But, questions some very astute surgeon, I would like to ask what you can do *per vaginam* in those old cases of combined metritis, parametritis, and parenchymatous degeneration, where the whole pelvic cavity is filled with an adherent septic mass, in which neither uterus nor adnexa are distinguishable, the whole being immovable? I reply that when we get such a case as this, and on grasping the cervix with vulsellum forceps, we find that we are unable to pull the uterus towards us even a quarter of an inch, we will wish that some other fellow had the case. I ask, however, what can you do with such a case in operating through an abdominal incision? Have we not seen the most distinguished laparotomists in such cases, open the abdomen, incise the septic mass, put in a drainage tube, and say they had had enough. Here there is only one thing that can be done: Remove as much as possible of the septic mass and institute irrigation and drainage. Cannot this be done infinitely better through the vagina than through an abdominal incision?

Besides, are we not adding an increased risk to such patients by opening the abdominal cavity? We know that nature, in these cases, throws out limiting adhesions, completely shutting out the septic mass from the general abdominal cavity. When we open the abdominal wall, we must break down these safeguards in order to reach the mass. *Per vaginam* we open directly into it, cut away all we can, search out, open and flush thoroughly all the collections of pus, then pack with gauze, which controls oozing and establishes a natural osmotic drain, and we have a natural route through which we can practice daily antiseptic irrigation. It is not at all infrequent in these cases to see, at the end of forty-eight hours, our patient's temperature drop three or four degrees, while the pulse rate is reduced thirty or forty beats per minute. At the end of four or five days, the patient has developed a good appetite and goes on uninterruptedly to recovery, subsequently maintaining a fair condition of health.

What will we do with those cases in which the pus tubes are adherent in several places and matted to the coils of the small intestines? Shall we break up these adhesions and run the risk of opening into the gut? In case the adhesions are extensive and cannot easily be broken up, it is better to remove all but the adherent portion of the mass and trust to future drainage and treatment for resolution. It is usually easy to pull the adherent gut down into view, and treat it as judgment dictates, just as one would if he were operating through an incision in the abdominal wall.

The time allotted to me will not permit a further discussion of the pros and cons of this great subject, but I trust that I have brought to my subject sufficient practical force to make my position in regard to it tenable.

554 Fourteenth street.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M.D., Sacramento, Cal., and
WM. FITCH CHENEY, B.A., M.D., Adjunct to the Chair of Obstetrics and Diseases of Women and Children, Cooper Medical College, San Francisco, Cal.

Vaginal Celiotomy Considered as an Approach for the Removal of Multiple Uterine Myomata.—DRS. WENDEL and BAILEY, in the *Medical Record*, report fourteen cases on which they had operated and with conservation of the uterus. As to what constitutes the limit of size of fibroid tumors which can be removed by conservative vaginal section, the authors consider that much depends upon the localization of the growths and the experience and skill of the operator. The preparatory treatment is the same as for hysterectomy. To avoid infection from the anus, a good-sized piece of sterilized rubber dam, with an aperture corresponding to the size of the vulvar commissure, is stitched to the fourchette and thighs. The perineum can then be pushed up or back, or an assistant may insert his finger into the rectum without the least danger of infecting the field. The uterus is thoroughly curetted and washed out, but not packed, because, should the uterine cavity be opened, the gauze would then interfere with suturing the wall. Erosions are burned with the Paquelin cautery. The vagina is thoroughly flushed out with sterilized water and swabbed dry. Two lateral retractors are inserted, widely separating the labia. An incision is made anterior or posterior to the uterus, or both incisions may be required. Unless the tumors be limited to the anterior aspect of the uterus, it is advisable first to incise the fornix in the post-cervical crescentic fold, open Douglas' pouch and explore. If the anterior fornix requires opening, the authors employ the saggitto-coronal incision. With reasonable care, the ureters are in no danger of injury, and the amount of space gained compensates amply for the additional time and trouble. The peritoneal apertures should be closed to the uterus, and extended well on to the broad ligaments. A vesical retractor keeps the bladder out of the way. Every portion of the uterus is now accessible. A stout volsellum is attached to the cervix and given to an assistant. A Hegar uterine dilator is introduced and the organ carefully palpated between the finger and the dilator. An incision is then made over the most prominent tumor and the capsule stripped back; if larger than a hazelnut, the tumor is grasped with a small volsellum and morcellated; if not, it is simply twisted from its attachments, and the bed sutured with interrupted buried sutures, drawn tight. When there are other growths juxtaposed to the one removed, the bed is not sutured until the entire nest is extirpated. Blunt dissection must be employed wherever possible. Whenever the uterine cavity is opened, the sutures shall be so placed that when the sides of the wound are apposed the strands are not exposed to infection. Spaces left in the parametrium should be drained with gauze strips brought into the vagina. The wounds are then swabbed dry, sutured, or left open, according to the requirements of the case. The vagina is packed with sterilized gauze, which is changed every second day. If everything goes well, the patient may sit up on the eighteenth day. The operations were all tedious, but the patients left the table with very little, often no shock. None died All except one convalesced without unusual incident. There are no unsightly scars, neither will there be ventral hernias. In one of the series of fourteen cases, a small tumor was found in the posterior wall of the corpus two years after operation; the other thirteen have shown nothing suspicious up to the present time. The most distorted uteri regained a fair degree of symmetry. Pregnancy occurred twice, one going to term; the other aborted by criminal induction at the second month.—*Post-Graduate*.

Spontaneous Rupture of the Uterus During the First Stage of Labor.—DR. HENRY W. J. COOK reports the following case: At 5 A. M., on November 28, 1897, I was sent for to attend a woman, aged 33 years, in her fourth confinement. Her previous confinements had all been rapid and normal, all the children except one being alive and healthy. She was curetted for endometritis twelve months before the present occasion and became pregnant soon after the operation. I had casually seen the patient several times during her pregnancy, which advanced in a perfectly normal manner, the only point worthy of notice being that she was of a very highly neurotic temperament. On examining the abdomen, as far as I could make out, the presentation was normal; there was no unusual distension, the child's movements could be plainly felt, and I heard the fetal heart sounds below and slightly to the left of the umbilicus. *Per vaginam* I found a capacious, roomy pelvis: the os was dilated only to about the size of a shilling, the head presenting normally, and the membranes unruptured. The pains, which had only lasted a couple of hours, were moderately strong and regular. As the case was evidently in an early stage I left the patient, returning about 7:30 A. M., when I found that the pains had become much more severe and the os had now dilated to the size of a half-crown, the head being engaged in the pelvic brim. I remained with her, intending shortly to rupture the membranes, and to allow her to sit about the room a little. About twenty minutes after, during a severe pain, she suddenly became very faint and pallid, so much so that she almost dropped on the floor, where I let her lie for a few minutes. According to her own statement the pain was so severe as to make her feel faint. Her pulse, previously normal, was rapid and soft, beating at about 120 to the minute; she vomited some milk and water which she had taken shortly before. I administered a hypodermic injection of brandy, after which she stood up and with the assistance of the nurse and myself got on the bed, complaining then only of slight pain in the abdomen. Her petticoat was wet with fluid and there was some blood coming from the vagina, though not in great quantity; the fluid was evidently liquor amnii. I immediately proceeded to examine her *per vaginam* and found at once that something unusual had taken place. The head had completely vanished; indeed, from the interior I could feel absolutely no part of the child; where the os and cervix should have been I could feel a raw, ragged surface which at first felt to me exactly like placental tissue and I thought at first that I must have in some unaccountable way in my first two examinations missed a diagnosis of placenta previa, especially as she was now losing some blood. I then turned my attention to the abdomen and at first sight saw that I had a case of ruptured uterus with the child floating free in the abdominal cavity. The abdomen was irregularly elongated transversely, and in the right umbilical and lumbar regions I could plainly feel a foot through the abdominal wall and on the opposite side was an eminence which I made out to be a shoulder. On feeling again *per vaginam* (inserting my hand) I could now clearly distinguish the state of affairs; there was an extensive rent extending upwards from the upper extremity of the vagina up the posterior wall of the uterus reaching almost to the fundus; what I at first had taken to be placenta was the edge of the rent and the posterior surface of the posterior wall of the uterus which had evidently become somewhat inverted; through the rent I could feel the intestines, but no part of the child or of the placenta. The examination caused the patient great pain and I could go no further without an anesthetic. Being alone, with the exception of an untrained woman as nurse, I deemed it advisable to wait till I could get more assistance. The patient was almost pulseless and I preferred to wait and keep her going with stimulants rather than have her die under an anesthetic without any one else to help. I therefore sent a messenger on horseback to my nearest medical neighbor, Mr. W. H. Brown, of Colac, twelve miles distant. He arrived in two and a half hours, and in the meantime I had rallied the patient and just succeeded in keeping her alive with brandy injected hypodermically and *per rectum*, salt solution injections, etc. Ether was now administered and the hand was inserted into the vagina through the rent posteriorly (the uterus was partially contracted) and into the abdominal cavity. After some trouble a foot was seized and drawn through into the uterus, the rest of the child following easily, with the exception of the head which somehow caught in the tear; after considerable difficulty it was pulled through and then delivered with ease, there being a large, well-developed pelvis, with absolutely no obstruction. There was slight prolapse of intestine which was returned easily. The child was dead. On tying the cord and dividing it the next thing was to find the placenta. This turned out a rather difficult matter, but after some search and by dint of following up the cord to its insertion it was found high up, almost under the liver. The uterus and vagina were douched out with solution of iodide of mercury, two hypodermic injections of ergotine were administered into the buttock, and the uterus, including the rent, was firmly packed with iodoform gauze. We had to finish hurriedly, for the patient being all but dead, we turned onr attention to rallying her. She improved so far as to be able to talk to her friends with the help of such means as raising the lower end of the bed, stimulants, salt-solution, compression of the abdominal aorta, etc. In the end, however, our efforts were unavailing, for she died six hours after the accident from pure shock. A *post-mortem* examination was not made.—*Lancet*, February 20, 1898.

SURGERY AND ANATOMY.

By T. W. HUNTINGTON, B.A., M.D., Surgeon Southern Pacific Company's Hospital, Sacramento, Cal., and

GEO. B. SOMERS, M.D., San Francisco, Cal.

When to Operate in Appendicitis.—DR. JOSEPH EASTMAN says: In many rapidly progressive diseases like appendicitis, which may ultimately require surgical interference, the abdominal surgeon should share the responsibility from the outset. That there are cases which should be entrusted to medical treatment from the beginning, I affirm; that the practising physician is as capable as the experienced abdominal surgeon to select such cases, I most emphatically deny. At all events, the two should share the responsibility from the beginning, and decide upon the following of either medical or surgical lines, and confer together during the progress of the case as to the most favorable moment for operative interference, and stop that murderous compromise—surgery, when medicine fails.—*Denver Medical Times*, January, 1898.

Situation of Pain in Intra-Abdominal Conditions.—DR. JOSEPH EASTMAN says: The small intestines are abundantly supplied by and intimately associated with the great sympathetic ganglia. These fickle-minded sympathetic nerves have no geographical sense; hence a pain coming from an obstruction in any part of the small intestine is expressed in the solar plexus of the sympathetic or superior mesenteric ganglia. This holds true with other intra-abdominal conditions. In a large per centum of cases of appendicitis a careful review of the history of the pain will show that it was first expressed above the umbilicus in the region of the superior mesenteric ganglia.—*Denver Medical Times*, January, 1898.

Treatment of Wounds.—DR. ROBERT T. MORRIS says: In an incised wound, the margins of which have not been quite approximated, capillaries begin to develop granulation tissue in the coagulated lymph which has been deposited upon the surface. This deposit occurs within a few hours, provided there has not been much injury to trophic nerves. This granulation tissue is of exceedingly delicate structure, and will not bear much handling; it is extremely sensitive to any sort of traumatism, such as would be inflicted by sponging it. When a granulating wound is suppurating freely there is a strong temptation to wipe away its pus with sponge or gauze, but we should avoid doing so. There are two principal reasons for this: The first is, that the granulation tissue suffers traumatism whenever it is touched, and as a result there will be developed exuberant granulation tissue, which will be poorly supplied with blood-vessels. If we place gauze upon the granulations, we injure this granulation tissue still more, for the little filaments of the gauze entangle the granulations in the meshes, and on the removal of the gauze small fragments are necessarily broken off. In order to avoid wiping away the pus from the granulation tissue is is well to cover the wound with very soft and properly prepared gutta percha tissue, or with Lister's protective silk.—*Post-Graduate*, January, 1898.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By WM. ELLERY BRIGGS, M.D., Sacramento, Cal.

Nasal Bacteria in Health.—In a paper upon nasal bacteria in health by DRS. WM. H. PARKS and JONATHAN WRIGHT, they state that there is a great difference of opinion among investigators as to the presence and abundance of bacteria upon the normal nasal mucous membrane. B. Fraenkel, Heuter, and Hertzog found many bacilli and cocci in normal nasal secretions. Emgen Fraenkel, Löwenberg and Hajek failed to find microörganisms at all constant or abundant in normal nasal secretions. Dr. Wright examined the secretions of ten healthy noses in 1888, and found a number of non-pathogenic forms and the diplococcus pneumonia, the streptococcus, and staphylococcus pyogenes. Schubert reported a case in whose nasal chambers there was an abundant growth of a mycelium. Deletti found by culture methods micrococci, tetracocci, staphylococci, and streptococci, besides aerial and other undetermined forms in three normal nasal passages. Strauss states that he has determined that the tubercule bacillus is the occasional inhabitant of the nasal fossæ. The experiments of Würtz and Lermoyez, if accepted as free from error, lead to the conclusion that the nasal mucus in normal noses possess a bactericidal power, which would account for the non-septic course of operation wounds in the nose, but, both before and since these experiments, Lermoyez has stated that occasionally bacteria, sometimes pathogenic, are found in the nose, and that precautions must be taken to prevent the occurrence of sepsis, both before and after nasal operations. Würtz and Lermoyez say that the mucus obtained from the healthy pituitary membrane does not generally contain any microbes. They have verified this fact, which is in flagrant contrast with the idea that ordinarily obtains of the richness of the bacterial flora of the nasal chamber. These investigators found that the nasal mucus had decided bactericidal power upon the anthrax bacilli, and its action upon the pathogenic organisms varies in degree, but its action upon all of them is similar to its effect upon anthrax bacilli. The investigations of the authors of this paper do not bear out the conclusions of Würtz and Lermoyez in regard to the bactericidal property of the nasal mucus. They examined 36 cases by cultures, and all but six out of the series developed bacteria in the cultures.—*New York Medical Journal*, February 5, 1898.

The Nasal Douche and Its Abuse.—DR. L. LICHTWITZ says that in the past the use of the nasal douche has been greatly abused. That it should only be employed to free the mucous membrane of the nasal fossæ from pus and crusts as in cases of idiopathic ozena. The author prefers an ordinary syringe, or an enema syringe, provided with a nasal piece, to the Weber's syphon.' The mucous membrane can be more efficiently cleaned in this way, and the ozena more effectively treated than by any other means. In all other nasal affections the nasal douche is very inadequate or altogether useless. In certain cases the douche is absolutely dangerous The repeated flooding with solutions of carbolic acid, alum, zinc salts, even in weak solutions, are highly injurious. Aronsohn found that the only solution not harmful to the mucous membrane was the physiological solution of sodium chloride (0.73 per cent.), of sodium bicarbonate (1.46 per cent.), of sodium sulphide (2.92 per cent.), etc. These solutions seem to become injurious when weaker or stronger than this. The author has known several cases in which the sense of smell was lost from use of the nasal douche. It is often the cause of distressing headaches, which is likely due to the solution entering the sinuses. The gravest complications which arise from its use are due to the penetration of the fluid into the middle ear, which is occasionally followed by suppurative otitis media. In some cases even mastoid disease has followed this method of treatment.—*Medical Press and Circular*, February 9, 1898.

Empyema of the Antrum in a Child Three Weeks Old.—DR. ALEXANDER DOUGLAS reports the case of a child three weeks old that was brought to him for an inflamed eye The right cheek was swollen, the right eye protruded, the eyelids were hyperemic, and the conjunctiva congested. There was bulging in the right side of the roof of mouth. Pressure on the cheek caused pus to exude from right nostril. An opening was made from the mouth, external to the alveolus, from which pus flowed freely. The cavity was washed out with boracic lotion, free egress being afforded through the opening into the nose. The threatened bursting of the abscess in the region of the orbit was averted by the free drainage; the distortion of the face gradually disappeared, and the eye gradually returned to its normal position. The child soon regained perfect health.—*British Medical Journal*, February 5, 1898.

The Asch Operation for Deviation of the Cartilaginous Nasal Septum.—DR. EMIL MEYER reports his experience in 200 operations upon the cartilaginous nasal septum by Asch's operation. The operation is best performed under general anesthesia. The nose is sprayed out immediately preceding the operation by an alkaline antiseptic, and the instrument should be made sterile. The head is drawn well backward, so that the blood may not enter the larynx, the table being so placed that either direct or artificial light may be used. The blunt separator is now introduced in the convex side to break up any adhesions existing between the septum and its adjacent mucous membrane. In case of firm adhesions a sharp separator may be required. The open scissors are next introduced parallel to the floor of the nose, the blade in the concavity, the blunt edge over the point of greatest convexity. They are then firmly closed, the blade cutting through the cartilage into the opposite side of the nose. They are again introduced, the direction of the instrument this time being upward pointing to the frontal bone, so that the two incisions will intersect each other. The cartilage is then pushed over with the finger and broken down and straightened by the strong blunt forceps. The sterilized tubes are introduced after hemorrhage is checked by pressure. In the stenosed side a tight-fitting tube is introduced. At the end of 24 hours the tube is lifted out of the concave side, and the one on the convex side should be removed, cleansed, and replaced daily. The patient can learn to remove and cleanse the tube after a few days, and should never wear the tube on the convex side for five weeks. The antiseptic sprays should be used frequently when wearing the tube, and ice water compresses should be applied over the nose for a couple of days after the operation.—*Medical Record*, February 5, 1898.

The Physiological and Pathological Relations between the Nose and the Sexual Apparatus of Man.—DR. JOHN N. MACKENZIE states that an intimate physiological relationship exists between the sexual apparatus and the nose, and especially the intranasal erectile tissue, is evinced from the following facts: (1) In a certain proportion of women, whose nasal organs are healthy, engorgement of the nasal cavernous tissue occurs with unvarying regularity during the menstrual epoch, the swelling of the membrane subsiding with the cessation of the catamenial flow. (2) In some cases of irregular menstruation, in which the individual occasionally omits a menstrual period without external flow, at such times the erectile bodies become swollen and turgid, as in the periods when all the external evidences of menstruation are present. (3) The monthly turgescence of the nasal corpora cavernosa may be bilateral or confined to one side, the swelling appearing first in one side and then in the other, the alteration varying with the epoch. (4) The periodical erection may be inconsiderable and give rise to little or no inconvenience, or, on the other hand, the swollen bodies may occlude the nostril and awaken phenomena of a so-called reflex nature, such as coughing, sneezing, etc. (5) In some cases, there seems to be a direct relationship between the periodical engorgement of the nasal erectile bodies and the phenomena referable to the head that so often accompany the consummation of the menstrual act. (6) As a natural consequence of the phenomena above described, the nasal mucous membrane becomes, at such periods, more susceptible to reflex-producing impressions, and is, therefore, more easily influenced by mechanical, electrical, thermic, and chemical irritation. (7) The condition (engorgement and increased irritability of the nasal mucous membrane) indicated above, together with the phenomena that accompany them, are also found during pregnancy at periods corresponding to those of the menstrual flow. There is also reason to believe that similar phenomena occur during the lactation and the menopause. (8) Vicarious nasal menstruation is a familiar condition. It may precede the uterine flow, or it may occur from suppression of the normal flow. (9) This vicarious hemorrhage may represent menstruation during pregnancy, or it may appear toward the close of menstrual life, or after the removal of the uterus and its appendages. Vicarious nasal hemorrhages also occur in boys at or near the age of puberty. (10) There is a well known sympathy between the erectile portion of the generative tract and other erectile structures of the body. (11) The occasional dependence of phenomena referable to the nose during sexual excitement. The data derived from clinical observation are as follows: (*a*) In a fair proportion of women suffering from nasal affections the disease is greatly aggravated during the menstrual epoch, or when under sexual excitement. (*b*) Cases are also met with in which congestion or inflammatory conditions of the nasal passages make their appearance only at the menstrual period, or at least are only sufficiently annoying at that time to call for medical attention. (*c*) Occasionally the discharge from nasal catarrh will become offensive at the menstrual epoch, losing its disagreeable odor during the decline of the ovarian disturbance. (*d*) Excessive indulgence in venery seems to imitate inflammation of the nasal mucous membrane. (*e*) The same is true of the habit of masturbation. (*f*) The coëxistence of uterine or ovarian disease exerts sometimes an important influence on the clinical history of nasal disease.—*British Medical Journal*, November 27, 1897.

DERMATOLOGY, SYPHILIS AND VENEREAL DISEASES.

Non-gonococcic Urethritis.—In an essay on this subject, GUIARD (*Jour. de Méd. et de Chir.*), points out that there are in gonorrhea three perfectly distinct stages, viz: (1) The gonococcic state. (2) The microbian stage without gonococci. (3) The aseptic stage without microbes These last two stages might be wanting, or might be produced independently of one another. In addition to these post-gonococcic discharges, there are other forms of urethritis in which the gonococcus has never been present; cases arising from some internal cause, such as paludism, syphilis, diabetes, tubercle, rheumatism; others resulting from articles of diet or medicine; and, lastly, those due to local causes, such as the passage of instruments, the use of irritating injections, and excessive sexual indulgences. It is the gouty diathesis which assumes the most prominent position in the production of non-gonorrheal urethritis; still, in many of these cases of so-called gouty urethritis, the gonococcus has been found, proving that there had been a previous contagion. There are, further, certain patients with a very susceptible skin, in whom the urethra as well as the other mucous membranes can be influenced in the same manner as the skin by highly spiced articles of diet. In a similar category may be included those who are the subjects of herpes, specially of herpes preputialis. This seems capable of localizing itself in the urethra, and of producing an inflammation of considerable acuteness. The discharge in such cases is very limited in amount, and is almost devoid of color. The history of cases of urethritis *ab ingestis* is difficult to unravel, and whilst lobsters, cray fish, asparagus, watercress, beer, cider, and white wine have been accused as provoking agents, Guiard has never seen any reason to classify them as such. In fact, experience seems to show that cases of urethritis from internal causes, although possible, are extremely rare, and in the majority of instances bacteriological examination will demonstrate the presence of gonococci in the discharge, proving that some old standing gonorrheal discharge has been aggravated by recent coitus. But there are numerous instances in which, without any shadow of doubt, we meet with discharges from *external* causes unaccompanied by gonococci. These discharges are of two varieties: one caused by the passage or sojourn of foreign bodies, and the other caused by venereal excesses. The former variety is met with after catheterism, after the passage of calculi or other foreign bodies, after the injection of irritating substances, or from the long-continued use of injections. In the class of cases caused by venereal excesses, might be instanced cases of so-called herpetic urethritis which did not give rise to any secretion, but which were nevertheless attended by acute pain during micturition and erection, but which completely subsided in less than eight days. Other cases might be denominated urethrorrhea, in which the discharge made its appearance very shortly after coitus, even after the lapse of a few hours; in these the discharge was clear or grayish in color, limited in amount, watery rather than purulent, and only gave rise to a slight tickling or disagreeable warmth during micturition. Bacteriology established palpable differences between these varieties of urethritis; the one class being microbic without containing any gonococci, whilst the other class of discharge was aseptic. Microbic urethritis in which gonococci had never at any time been present in the discharge was rare, and the microörganisms met with were diplococci, bacilli coli, etc. Such cases might be distinguished from true gonorrhea by their short period of incubation, by their short duration, and by the mildness of the symptoms, though in some of these cases the discharge was contagious. Side by side with these cases of microbic urethritis might be ranged the commoner forms of urethritis, primarily aseptic or consecutive to gonorrhea; in these cases repeated examinations fail to reveal any gonococci. They might be consecutive to true gonorrhea which had been appropriately treated, or they might follow after some suspicious coitus; or, again, they might occur to married people in whom there had been no possibility of infidelity, and in such cases Guiard had seen the discharge first show itself four or five weeks after coitus. The phenomena of all these discharges were, as a rule, very insignificant; but the gravest point in connection with them was that they continued for a long time, and were uninfluenced by regimen, by venereal excesses, by severe privations, or even by the most varied treatment. The prognosis was always favorable, for there were never any complications, the discharge was not contagious, and the only cause for anxiety was the possible supervention of hypochrondriasis; in that event, local measures were of no avail, and only general treatment would produce a satisfactory termination.—*Practitioner.*

On the Contagion of Tertiary Syphilis.—TARASSEVITCH distinguishes between the contagion from late secondary lesions and that from true tertiary manifestations, a distinction which is of importance from the practical as well as from the theoretical point of view (*Ann. de Derm. et Syph.*). Secondary lesions are contagious, however late they may show themselves, and it is not uncommon to see them ten years after the appearance of the initial lesion; they have been met with twenty-three and even twenty-nine years after. It is worthy of note that the mild cases, but with a tendency to frequent relapses, are those which remain contagious for the longest period, and which, further, may give rise to serious and grave syphilis. There are numerous clinical and experimental observations in accordance with the opinion that syphilis arrived at the tertiary stage completely loses its virulence, and is not capable of transmission; but these negative facts afford no absolute proof. Recent observations show, on the contrary, that husbands who are without doubt suffering from tertiary syphilis, as proved not only by the development of gummata of the lips, sclerosing glossitis, but the date of appearance of these symptoms fourteen or twenty-one years after the chancre, can contaminate their wives under conditions that preclude the possibility of other sources of contagion. It is undeniable that in the majority of cases time enfeebles the virulence of syphilis, and that consequently tertiary lesions are infinitely less dangerous than the chancre or secondary manifestations; but it is impossible to explain why this virulence should sometimes be sufficient to give rise to contagion even after a long period of the secondary stage. In observations concerning late syphilitic contagion, it is usually found that it is the husband who infects the wife, the contagion usually taking place in the first few months after marriage; if it appears later, the fact is explained by the absence of manifestations in the husband, by the temporary latency of the disease, or possibly because the husband, aware of the risks he is incurring, takes precautionary measures, which succeed for a variable period of time. The genital tract is that by which the contagion ordinarily occurs, but the greater the lapse of time from the outbreak of the disease, the more important part does the buccal region begin to play, and after ten years, nearly half of the cases may be ascribed to this source. Consequently the hygiene of the buccal region ought to take a large share in the prophylaxis of syphilitic contagion, bad hygiene and the abuse of tobacco being provoking agents, and favoring the buccal lesions of syphilis. The use of tobacco ought to be modified in every syphilitic patient, and even forbidden in those cases in which syphilis recurs and localizes itself in the mouth. In old syphilitic subjects the more trivial lesions, such as herpes, or erosions and abrasions, whether localized in the mouth or on the genital organs, ought to be held in suspicion. It is advisable to make chronic syphilitic patients follow out a course of treatment before sanctioning their marriage, till the lapse of five or six years from the inception of the disease. Such treatment is indispensable if the patient has been inadequately treated, if the syphilis has been of long duration, and if the last course of treatment dates a long while back; while, paradoxical as it may seem, it is especially called for if the attack has been slight from its commencement, for syphilis gains in its duration what it lacks in its intensity.—*Practitioner.*

MATERIA MEDICA AND THERAPEUTICS.

By Wm. Watt Kerr, M.A., M.B., C.M., Professor of Clinical Medicine, University of California, San Francisco.

Influence of Iron on the Secretion of the Gastric Juice.—Buzdygau has sought an experimental solution of the question why all chlorotic and anemic patients do not bear iron equally well, and why in some cases the metal gives rise to so much gastric disturbance as to render its use impossible. He compared the digestive powers of the stomach in a large number of cases before and after the administration of iron; he made in all 333 observations on 16 patients, mostly anemic and chlorotic, and found that the cases fell into three groups. The first comprised three patients in whom the secretion of gastric juice was normal during digestion; in them iron had no influence on the formation of free hydrochloric acid. The gastric juice digested albumin in two to six hours "*in vitro;*" iron was found in the gastric contents two hours after administration, but had entirely disappeared in seven. The second group, of seven patients, suffered from gastric insufficiency, both secretory and motor. In five, all with dilated stomachs, the output of free hydrochloric acid was uninfluenced by the iron, where no hydrochloric acid was present albumin was not digested in 24 hours. In the remaining two patients the administration of iron caused an increase in the amount of free hydrochloric acid, which appeared in from two to four hours; iron could still be demonstrated in the stomach six hours after administration. The last group consisted of six patients, with increased secretion of gastric juice. In every case the use of iron increased the production of free hydrochloric acid, which reached its maximum in the fourth quarter after the administration. Digestion *in vitro* was vigorous, and iron was found in the stomach six hours after it had been given. The author concludes that in cases in which the gastric contents are already too acid during digestion, iron accentuates the hyperacidity of the gastric juice and aggravates the dyspeptic symptoms which are usually present in anemia and chlorosis. In these cases the digestive affection must be set right before iron is administered. In cases, however, in which the secretion of hydrochloric acid is normal or diminished, iron may often do good service in stimulating the gastric mucous membrane to secretion. All the experiments tend to show the value, indeed the necessity, of ascertaining the condition of the stomach before prescribing iron.—*British Medical Journal*, November 6, 1897.

Diabetic Albuminuria and Its Treatment.—GOUDART has recently devoted much attention to this subject. First, the frequency of albuminuria in diabetes is variable and may occur in two forms, functional and that due to grave nephritic disease. In the first form it may be extremely slight, or else constitute a very marked feature in the case. When slight, proper dieting and small doses of antipyrin combined with a little bicarbonate of soda in the form of a powder may be given every one and a half hours before each meal. This treatment should not be continued more than three or four days, beyond which time the antipyrin will become injurious. It is well to prescribe some quinine, wine, and Vichy water at meals. After this treatment the sugar decreases considerably, in other cases it remains unaffected. In the first instance, anti-diabetic treatment may be set aside and attention devoted to the albuminuria; in the second instance, it is advisable to order small doses of arseniate of soda combined with codeine and carbonate of lithia. Most usually the glycosuria diminishes under this treatment, and the albuminuria is then treated in the same manner as above. This line of treatment is usually followed by extremely satisfactory results. After a fortnight or so it is recommended to give phosphates with nux vomica, or later, hypophosphites of lime potash, or soda with quinine. Should the quantity of albumin eliminated in 24 hours reach 2 to 3 gm., the case is practically one of Bright's disease, and the patient is put on milk diet. The author now recommends lactate of strontium in small doses.—*British Medical Journal*, December 4, 1897.

MEDICINE AND PATHOLOGY.

By Albert Abrams, M.D., Professor of Pathology, Cooper Medical College, San Francisco.

The Quantity of Ammonia Contained in the Human Blood under Physiological and Pathological Conditions.—Dr. H. Winterberg (*Wiener klin. Wochenschrift*), basing his conclusions upon an examination of the blood of 12 healthy persons, states that the average quantity of ammonia in the circulation is 0.96 mgm. in each 100 c.c. of blood, this quantity varying slightly in each individval, as do the salts, etc. The quantity varies greatly in fever; it is usually increased, but may be unaltered, or diminished. More important are his observations of the uremic state, in which he noticed but a slight increase in the ammonia, once up to 2 mgm., once to 1.4 mgm. The blood of a dog, after extirpation of both kidneys, showed no change in the amount of ammonia. This experiment, he thinks, tends to prove the fallacy of Frerichs' theory that uremia is due to an accumulation of carbonate of ammonia in the blood.—*Medical Record*, January 15, 1898.

Etiology of Chorea.—Legay has published (*Thèse de Paris*, 1897), some interesting statistics relative to the origin of chorea, from which it appears that the disease is found in those who have a neurotic heredity, with almost always a recent infection. This infection, in the majority of cases, is rheumatism, but there are many instances of chorea arising from other conditions, more particularly various specific diseases, such as measles, with or without bronchopneumonia, scarlatina, typhoid, influenzic bronchitis, tuberculosis, and varicella, even boils with marked glandular enlargement, impetiginous eruptions on the head, and suppurative otitis. All these seem capable of producing chorea.—*Atlantic Medical Weekly*, January 15, 1898.

Free Leucocyte Granules; Immunity.—Stokes and Wegefarth (*Johns-Hopkins Hospital Bulletin*), have undertaken a study of certain free granules, recently described in the plasma of the blood by Müller, of Vienna. The authors think that these granules are the neutrophilic and eosinophilic granules from the leucocytes. They quote the experiments of Buchner to show that the antitoxic properties of the blood reside in the serum. They think they have been able to show that this property is due to the presence of these extracellular granules in the plasma.—*Columbus Medical Journal*, January 4, 1898.

The Serum Treatment of Scarlatina, Measles, Pneumonia, and Erysipelas. Huber and Blumenthal (*Berl. klin. Woch.*), have experimented with the blood of persons convalescent from these diseases. Blood was drawn from a vein of the elbow and the serum mixed with an equal amount of physiological solution of salt, 1 per cent. of chloroform being added, and the mixture was passed twice through a Beckfield filter. The serum was used in 13 cases of scarlatina, 9 of measles, 14 of pneumonia, and 10 of erysipelas. It mitigated and shortened them all, but did not hasten defervescence in the cases of pneumonia. *Medical Review*, January 29, 1898.

New Blood Parasite.——Smith (*American Journal of Medical Sciences*), describes a parasite found in the red blood corpuscle of a fever patient lately come to New York from Syria. The microörganism resembled very closely the ameboid form of the aestivo-autumnal malarial parasite, except that it was larger, less distinct in outline, and entirely free from pigment. When first seen one-tenth of all the red blood corpuscles contained the parasite. It stains much like Laveran's organism. The leucocytes were slightly increased, cultures were

entirely negative. The parasites were most numerous at the height of the paroxysm. The fever lasted nine months; was at first continuous, later becoming intermittent, which was the case when the blood examination was made. Although quinine was given a thorough trial, it had no effect upon the disease. *Columbus Medical Journal*, February 1, 1898.

MENTAL DISEASES AND MEDICAL JURISPRUDENCE.

By A. W. HOISHOLT, M.D., Assistant Physician, State Asylum for Insane, Stockton, Cal.

Insanity Connected with Nephritis.—DRS. B. MARKWALD and G. HONIGMANN report three cases of this nature. The first case was a patient 56 years of age, suffering from chronic nephritis, who, simultaneously with the development of edema, oliguria, and marked albuminuria, presented the picture of hallucinatory confusion (hallucinatwische Verwirrtheit). After he had had several maniacal attacks there was a gradual return of consciousness, and six weeks after the first symptoms had appeared there was a complete subsidence of the mental disturbance, but the albuminuria, the presence of casts in the urine and the edema continued, and the case terminated fatally soon afterwards. The autospy showed hypertrophy of the heart, arterio-sclerosis and contracted kidneys. An examination of the brain could not be obtained. The second case was one of chronic interstitial nephritis, in which, in connection with a diminution of the urinary secretion, there was a development of hallucinations with dizziness, vomiting, a partial blindness and defective memory. In the course of the following four weeks there was an increase in the insufficiency of the heart and kidneys and some signs of chronic uremia, but no psychic disturbances, which, however, after an enormous increase in the diuresis by means of digitalis and camphor, again showed themselves, and finally led to a fatal termination. The third case was an acute hemorrhagic nephritis of septic origin. Three days after the beginning of the disease, in the absence of fever and cardiac insufficiency, severe mental disturbances set in, hallucinations, conditions of excitement, defect of memory, difficulty in the pronunciation of words and echolalia. The mental condition continued for three days until exetus laetalis. In both of these cases an autopsy was not permitted. The authors consider uremic autointoxication the cause of these mental disturbances, and that it goes hand in hand with the severity of the disease. It was particularly interesting in one of the cases, that there should be a complete subsidence of the physical symptoms, an improvement in the quality of the pulse, and a disappearance of the dyspnea simultaneously with a development of an acute maniacal delirium. One might almost compare it with the action of a narcotic remedy. It was, on the other hand, also of interest that in the second case the severe mental symptoms should follow immediately the marked diuresis produced by digitalis and camphor. Neither in this case nor in the case of the acute hemorrhagic nephritis, in which there was no marked diminution in the quantity of urine secreted, could one think of the retention of the urinary ingredients as the cause of the uremia. Dr. Honigmann recommends, as regards therapy, the use of opium in large doses (30 drops of the tincture), which produces sleep and subdues excitement, or suppositories of the extract of opium (0.05—0, 3 gm.) may be given. Hypodermic injections of morphine seem to produce long-continued conditions of excitement. Chloral is contraindicated on account of its depressing effect upon the blood-pressure. He warns against the use of camphor and digitalis, which he thinks may possibly assist in the development of the mental symptoms.—*Zeitschr. f. prakt. Arzte—Centralb. f. in. Medicin,*

Long Duration of General Paralysis.—At the French Congress of Alienists and Neurologists M. LAPOINTE reported a case of dementia paralytica, in which the duration of the disease had been unusual, and in which the cardinal symptoms had gradually disappeared and been replaced by simple dementia. The autopsy verified the diagnosis after the disease had lasted fifteen years. M. Vallon, in discussing the report, said he had seen similar cases verified by autopsies, and considered that the maniacal form had frequent remissions, but that the demented form had none. An important prognostic sign was the losing of flesh by the patient, which indicated a rapid course of the malady; an increase of weight, on the other hand, usually was a sign that the patient would live a long time. Voison and Séglas had observed cases lasting 15 to 20 years, with marked symptoms of general paralysis during the whole of that time. Dontrebente and Régis thought that the diagnosis in such cases was very likely to be confused with that of disseminated sclerosis, cerebral, syphilitic or chronic alcoholism.—*Medicine Moderne—Journal Nervous and Mental Disease.* [In the Stockton Hospital for Insane there is at present a male patient suffering from dementia paralytica, who has been an inmate over seven years. During the first five years the symptoms were very typical; of late symptoms of dementia have been extreme, and, as he has lost much in flesh recently, a fatal termination is looked for in the near future. This is the longest duration of asylum-detention of any case of general paralysis on record in this asylum.—A. W. H.]

The Treatment of General Paralysis.—In a discussion before the British Medical Association PROF. CLOUSTON said that in the early stage of this disease he combined seclusion with sulphonal in specially acute and risky cases. He gave the sulphonal in from 30 to 40 grain doses, dissolved in hot milk, a method of administration which a German experimentalist had found entirely to prevent hematoporphyrinuria. After the first day the patient become sulphonal drunk. About the third day a condition little short of sulphonal coma was produced, and then he diminished the dose. After a week or ten days of this treatment the general paralytic passed quietly and without accident into the second stage of the disease. He had tried this plan in several cases, and, considering the incurability of general paralysis, he believed one would be justified on medical grounds in adopting it in a certain number of carefully selected instances. Drs. Clouston, McDowall and Turnbull believed the disease was very decidedly on the increase. Dr. Clouston said that he did not believe in the syphilitic origin of the disease, though he admitted that there were facts which might point that way.—*Journal Nervous and Mental Disease*, May, 1897.

The Anatomico-Pathological Findings in an Acute Case Belonging to the Group of Paranoia.—Under this heading DR. A. CRAMER reports a case of a man, 24 years of age, otherwise healthy, normally developed mentally, without hereditary disposition, who, in his third year, had an attack of convulsions, of short duration. The patient had had a fall from a horse, and after an interval of 8 or 10 days, during which no evil effects of the fall had been observed, he commenced to drink to excess, the spree lasting several days. This was immediately followed by a condition of intense excitement, attended by hallucinations, delusions of persecution and of poisoning, and compulsory ideas. Four days after, fever set in and the case terminated fatally in coma, with symptoms of heart-failure on the seventh day. The autopsy showed intense venous hyperemia of the pia and cortex, with flattening of the convolutions. In the cortex there were numerous fresh blood extravasations, which were even more marked in the medullary substance. Many vessels, especially veins and capillaries, contained fresh pigment, while others showed leucocytes, arranged in rows within the adventitia; there were, however, no grouping of leucocytes within the tissues. In addition to this, an almost complete adhesion of the dura to the calvarium was found. In looking over the literature, Cramer found a report of this adhesion of dura and calvarium present in a strikingly large number of cases of acute insanity of similar nature. He is of the opinion that this adhesion is an obstruction to circulation, which becomes manifest whenever there is an increase in the intracranial pressure. In the present case, the dura-adhesion played a role in the development of the anatomical picture of cortical encephalitis. Cramer considers his case a proof that an acute case of the paranoia group may be caused by severe pathologico-anatomical changes of a non-infectious character.—*Arch. f. Psych. u. Nervenk'h'ten.*—*Centralblatt f. innere Medicin*, December 18, 1897.

Scopolamine in Meningeal Insanity.—DR. TOMASSINI states that $\frac{1}{200}$ gr. of scopolamine is beneficial as a cerebral depressant in cases of meningeal insanity. If given in injections it does not produce much pain or local reaction; sleep comes on rapidly, the patient being quiet in a very few minutes. The pulse is regular, being little diminished in force or frequency; respiration is not altered. Sleep usually lasts from four to five hours, and may be prolonged to eight hours without any interruption. The cases in which scopolamine is particularly indicated are those in which a powerful sedative is required, as, for example, acute mania and maniacal epilepsy.—*Universal Medical Journal*, October, 1897.

FORMULÆ.

By H. H. SANDERSON, Ph.B., M.D., Assistant Physician State Asylum for Insane, Stockton, Cal.

Habitual Congestion of Face, from Acne, etc.—BROCQ recommends:

Dry extract of hamamelis	gm 0.01
Bicarb. of sodium	gm 0.25
Calcined magnesia	gm. 0 20
Powdered ergot	gm. 0 05
Socotrine aloes	gm. 0 05
Powd. nux vomica	gm. 0.02

Two such powders daily for twenty days; then, after intervals, begin again.—*Medical Record.*

Acute Gastric Catarrh.—BRUNTON advises:

Bismuth subnitrat	gr. x
Potass. bromidi	gr. xv–xx
Acid hydrocyanic dilut.	m. v
Spt. chloroformi	m. x
Mucilag. Acaciæ	ʒii
Aq.	*q. s. ad.* ℥i

S.—To be taken every three or four hours, ten minutes before meals.—*Medical News.*

"R. and S. Comp." Mixture for Dyspepsia.—This well-known mixture, so often used in dispensaries, consists of the following:

Pulv. rhei	ʒ I gr. xxxvi
Sodii bicarb.	℥ss
Pulv. ipecac	gr. vi—viii
Tinct. nucis vomicæ	ʒ ii
Aquæ menth. pip.	
q. s. ad.	℥vi

S. — Dessertspoonful before each meal.—*Medical News.*

Pinworms.—COMBY believes that the best treatment for these worms is:

Hydrarg Chlorid. Mitis	gm. 0.10
Santonin	gm. 0.05

To be taken each morning before breakfast, in a little milk; also anointing the anus each night with:

Amyl-Glycerole	20.
Ungt. Cinerei	10.

—*Médicine-Moderne.*

Vertigo in Arteriosclerosis:

Sodii iodidi .... ʒii
Aquæ distilat.......... .. ℥viii

S.—One or two teaspoonfuls, three times a day.—*Rev. de Therapeut.—Medical News.*

Itching of Urticaria:

Menthol................1 part
Chloroform....... - } each 3 parts
Ether.............. }
Spirit. of camphor.. }

S.—Spray affected parts, and then dust with zinc oxide.—*Province Medicale—New York Medical Journal.*

Acute Eczema.—STELWAON advises:

Calamine..........
Zinci oxidi........*āā* ʒii—iii
Glycerine -----
Alcoholis ....*āā* ʒi
Liq. Calcis........ ℥ss
Aquæ....*qs. a. d.* ℥ii

—*North Carolina Med. Journal.*

Asthmatic Paroxysm.—Dr. S. Solis-Cohen finds nothing better than the following combination:

Morphin. sulphat.gr. $1/8$ to $1/4$
Strychnin sulph. gr. $\frac{1}{60}$ to $\frac{1}{40}$
Hyoscin. hydrobromat. gr. $\frac{1}{200}$

—*Philadelphia Polyclinic.*

PUBLIC HEALTH.

By W. R. Cluness, M.A., M.D., San Francisco, Cal.

Mortality for January, 1898.—The deaths registered in 29 town districts of the State, during the month of January, in a population of 797,500, correspond to an annual rate of 15.72 a thousand, the total mortality having been 1049. 51 deaths were due to zymotic diseases, giving an annual rate of .75 a thousand. Of these, 22 were due to diphtheria, 1 to cholera infantum, 9 to typhoid fever, 2 to diarrhea and dysentery, 0 to cerebro-spinal fever, 1 to whooping cough, 12 to croup, 0 to intermittent and remittent fevers, 3 to scarlet fever, 0 to measles, and 0 to small-pox. 335 deaths resulted from diseases of the respiratory organs, giving an annual rate of 5.04 a thousand. Of these, 172 were due to consumption, 118 to pneumonia, 39 to bronchitis, and 6 to pulmonary congestion; the rate being, for consumption and pneumonia, 2.52 and 1.68 respectively. 130 deaths resulted from diseases of the heart, 4 from alcoholism, 2 from erysipelas, 37 from cancer, and 454 from causes not given. The average annual death rate from all causes occurring in the ten largest cities and towns in the State, and representing a population of 628,200 was 18.00. The highest rate for the month occurring in cities having a population of 10,000 or more inhabitants, was reported from San Francisco, the lowest from Fresno.

METEOROLOGY.

Summary for January, 1898.—*Temperature.*—The normal temperature of the State for January is 44.7°; the average for January, 1898, was 41.0°, a departure from the normal of -3.7°; the highest monthly mean was 60.2°, at Santa Ana; the lowest, 13.9°, at Bodie. The maximum temperature was 88°, at Nordhoff, on the 1st and 2d. The minimum, -24°, at Bodie, on the 11th. The absolute range for the State was 112°. The greatest monthly range was 76°, at Snedding's Ranch; the least, 23°, at San Francisco.

Rainfall.—The normal precipitation for the State for January is 3.90 inches; the average for January, 1898, was 1.08 inches, a departure from the normal of -2.82 inches. The greatest monthly precipitation was 6.37 inches, at Morse's House; the least, nothing, at Ogilby.

Wind.—The prevailing direction of wind was north.

Unusual Features.—There were no unusual meteorological features for the month of December.—W. H. Hammon, Forecast Official and Section Director.

California—Tabular Statement for January, 1898.

STATIONS.	TEMPERATURE.						RAINFALL.		Mean Relative Humidity	WEATHER.			WIND.	FURNISHED BY—
	Mean............	Highest	Lowest.........	Mean Highest...............	Mean Lowest..............	Mean Daily Range..........	No of Days Rain Fell......	Total Rainfall................		No. of Clear Days.....	No. of Fair Days............	No. of Cloudy Days............	Prevailing Direction.	
Auburn ....Cal.	41.4	69	26	------	------	------	4	1 13	------	13	0	8	N.E.	Southern Pacific Company.
Berkeley......... “	44.8	59	33	50 9	38.8	12 1	9	1.54	80 4	16	6	9	N.	Obs. University of California.
Colfax............ “	40.4	72	24	------	------	------	6	1.80	------	12	10	9	N.	Southern Pacific Company.
Coronado......... “	------	------	------	------	------	------	----	------	------	----	----	----	--------	H. A. Masac.
Eureka........... “	44.0	60	30	50.3	37.9	------	18	3.23	82 0	7	11	13	S.E.	Weather Bureau Dept. Agr.
Fresno........... “	42.4	64	24	51.8	31.5	------	7	0.42	72.9	11	7	13	N.W.	“ “ “
Keeler .... “	36.4	57	22	------	------	------	0	------	------	6	20	5	N.	California and Nevada R. R.
Los Angeles.... “	52.0	84	31	61.0	42.0	------	6	1.26	65 0	12	10	9	N.E.	U. S. Weather Bureau.
Monterey .... “	48.8	68	29	------	------	------	9	0.89	------	18	0	13	S.	Southern Pacific Company.
Napa........... .. “	43 2	64	24	54.7	31.8	------	8	1 22	81.7	14	12	5	--------	Station Napa Insane Asylum.
Oakland......... “	44 2	57	31	51.2	37.1	------	10	1.30	------	19	6	6	N.W.	Chabot Observatory.
Paso Robles.... “	42.6	65	23	54 2	31.1	------	4	0.82	------	13	14	4	S.W.	Agr. Experimental Station.
Red Bluff....... “	42.0	65	24	52 0	33.0	19 0	5	0 54	------	17	8	6	N.	Weather Bureau Dept. Agr.
Sacramento..... “	42.0	59	26	51.5	32 6	18.8	6	0.98	70.0	16	8	7	N.	“ “ “
San Bernardino “	46.7	83	24	58.6	34.9	23.6	7	2.10	------	15	8	8	N.	A. K. Johnson, M. D.
San Diego....... “	50.8	78	36	58.2	43.4	------	12	1.71	69.8	19	3	9	E.	Weather Bureau Dept. Agr.
San Francisco.. “	46-7	59	36	51.8	41.6	10.3	8	1.12	72 0	9	11	11	N.	“ “ “
Santa Barbara.. “	50-7	78	34	60 0	41.4	18.6	4	0.63	58.0	21	4	6	W.	Hugh D. Vail.
Santa Cruz...... “	46-0	70	26	58.5	33.6	24.6	9	2.17	------	15	5	11	S.W.	Ralph Springer.
Yuma............A. T.	50-2	72	26	------	------	------	6	0.24	------	13	4	14	N.	Weather Bureau Dept. Agr.

Blank (----) indicates data missing.

Occidental Medical Times.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: MARCH, 1898.

THE STATE SOCIETY.

The annual meeting of the Medical Society of the State of California will be held in Fresno, April 19th, 20th and 21st. As this is the first meeting ever held in Central California it should bring out a large attendance from the profession resident in the San Joaquin Valley, and result in a marked increase in the membership from a section now poorly represented in the Society. It is, as yet, impossible to publish the programme in detail, as authors are, as usual, dilatory in furnishing the titles of their papers. Enough, however, is known to assure an abundance of interesting material. The Committee of Arrangements, of which DR. A. J. PEDLAR is Chairman, has announced the usual reduction in transportation on the railways entering Fresno. That enterprising city has now two distinct lines, the Southern Pacific and the new San Joaquin Valley Railway. Hotel accommodations can be secured in advance, but there is ample to provide for all that will probably attend.

The selection of a city like Fresno for the annual meeting is largely experimental, but it is an experiment that should be made, and one that we believe will be successful. There are those who oppose the annual migration of the Society, as it is termed, though without adducing any good reasons for their position. We have often pointed out the advantages to be derived from this annua migration, and the inevitable stagnation awaiting upon meetings that, year after year, are held in the same city. It now rests with the local profession to demonstrate that the coming of the Society surely results in an increase of membership to prove the justice of this position.

Neither sectionalism nor factions should be encouraged in the State Society, whose scope should be of the broadest, and which has properly many aims and purposes besides that of pure medical science. As the chief medical organization of the State, there is a large field for it in the betterment of all conditions affecting the profession. Amongst some of the more urgent needs are a better medical law; the abolition of all forms of contract practice, which has in effect brought about a reduction of legitimate medical fees; the limitation of the growing evil of free clinics and dispensaries, and a fair consideration of the abuse of hospital practice. There are many other subjects well worthy of investigation and equally demanding a remedy. All these affect the daily life of the rank and file of the profession—the army of workers that make up the body-medical. To many of them these evils mean a deprivation of the comforts of social or professional life; to many it is a question of bread and butter. These evils are constantly increasing, and it would be well if steps were taken, even though they be but preliminary ones, to rectify abuses that will ere long become intolerable.

NOTES.

Officers Alameda County Medical Society.

At the regular meeting of the Alameda County Medical Society, held in January, the following were elected officers for the ensuing year: President, H. G. Thomas; Vice-President, R. F. Stratton; Treasurer, R. Harmon; Secretary, Myra Knox; Judiciary Committee, A. H. Pratt, J. H. Todd, J. L. Mayon, M. L. Johnson, S. H. Buteau; Board of Censors, E. R. Sill, E. J. Boyes, W. J. Wilcox.

San Joaquin Valley Medical Society.

In consequence of the proximity of the meeting of the State Society in Fresno, the spring meeting of the San Joaquin Valley Medical Society that should have been held in that city on Tuesday, March 8th, has, after a canvass of the situation by the officers, been abandoned so that the energy of the local profession might not be divided by two events coming so close together. A business meeting of the Society will be held some time during the meeting of the State Society.

American Academy of Medicine.

The twenty-third annual meeting of the Academy will be held at Denver, Col., on Saturday, June 4th, and Monday, June 6th, immediately preceding the meeting of the American Medical Association. The Brown Palace Hotel has been made the headquarters of the Academy, the management having given special rates for the occasion. It is suggested that rooms be secured early, especially if it is intended to remain to the meeting of the American Medical Association. It is planned to hold three sessions on Saturday, beginning at

10:00 A. M., at 3:00 and at 8:00 P. M. Another session will be held on Monday at 10:00 A. M., at which time it is hoped all the business can be completed, affording the fellows an opportunity to attend the meetings either of the Association of American Medical Colleges or the National Confederation of State Medical Examining and Licensing Boards, which meet on this day. This plan contemplates holding the reunion session on Monday evening. A number of interesting papers have been promised.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting, December 21, 1897.

The President, W. J. HANNA, M.D., in the Chair.

Oxytuberculin.—DR. H. D'ARCY POWER: I would like to ask whether any member of the Society has given oxytuberculin, as brought before the profession recently, a practical trial. I have been trying it on a patient of mine—a case of phthisis—with two cavities, and at the time the case came under my care it was associated with pleurisy. I have been treating this case for five or six weeks with oxytuberculin injections carried out in the order directed, and there has been a very marked improvement The temperature has fallen, the sputa is diminished in amount, the pleurisy has cleared up, and the number of bacilli in the sputa were less in the last examination than in the beginning. That has been my experience in that particular case. I saw a number of cases recently in San Francisco that were being treated in a similar manner, and, as far as I could judge, several of them were yielding results better than mine.

DR. A. M. HENDERSON said he treated a case for two weeks with no sign of improvement.

DR H. D. LAWHEAD, of Woodland: I have been using the remedy for nearly two weeks, but so far with no appreciable result. I feel that perhaps there is some general improvement of strength. The patient walks to my office and seems less fatigued than at first, but the cough still continues. The trouble is laryngeal; the patient has no voice I have almost completed the second four ounce bottle. I have not noticed any disturbance in any way. It is not an advanced case; the history extending back about one year, and it is only within the last two months that bacilli have been discovered. The patient, however, has shown some constitutional disturbance—the temperature has ranged from 99° to 100° and 101° F. The patient has a very obstinate cough and some slight ulceration.

DR POWER: I will state that my case did not show any improvement in two weeks. After four bottles had been used I noticed an improvement in the condition of the sputa. For the first two weeks there was no change beyond a diminution in the amount of pleuritic trouble, but after three weeks there was a diminution in the amount of sputa and in the number of bacilli found therein This was a case of tuberculosis of both lungs, with cavities, and dyspnea on exertion. The general results would seem to show that you must not expect any improvement in fourteen days. The records range from four to fourteen months.

DR. G. C. SIMMONS: About a year ago I treated a case of acute phthisis. After using it for two weeks the woman died, and it certainly was a more rapid death than was anticipated I used it on another case, and I have not been impressed with it—it hastened death. It was used according to Dr. Hirschfelder's directions. This case was complicated with hemorrhages, and she died from an internal hemorrhage, and that medicine hastened it.

DR. W. A. BRIGGS read a paper entitled "The Prevention and Treatment of Puerperal Infection" [Published at page 113.]

Dr. A. M. Henderson: The history of the solution of the cause of puerperal fever is one of the most glorious achievements in the medical science of the century. Hippocrates attributed this condition to the presence of coagula or pieces of retained placenta within the uterus. Until the last few years of the eighteenth century probably no one approached nearer to the true cause; cause and effect having been variously confused in the effort to explain the condition. However, Gordon, in 1795, at least hinted very strongly at the true explanation, when he ventured to prophesy what women would be attacked by the fever if told by what midwife or physician they would be attended. I believe credit is due Great Britain for the first realization of infection being carried by the attendants, for following Gordon, many English authorities announced their belief in this opinion. Probably no more decisive argument was made in establishing the theory, certainly no more brilliant contribution was made to the medical literature on this subject than the masterly monograph of our own Dr. Oliver Wendell Holmes. A discussion of this subject before an American Medical Society can scarcely be complete without paying some tribute to Dr. Holmes, and I think this cannot be better done than by quoting from the closing lines of the monograph referred to: "It is as a lesson rather than as a reproach that I call up the memory of those irreparable errors and wrongs. No tongue can tell the heart-breaking calamity they have caused; they have closed the eyes just opened upon a new world of love and happiness; they have bowed the strength of manhood into the dust; they have cast the helplessness of infancy into the stranger's arms, or bequeathed it, with less cruelty, the death of its dying parent. There is no tone deep enough for regret, and no voice loud enough for warning. The woman about to become a mother, or with her new born infant upon her bosom, should be the object of trembling care and sympathy wherever she bears her tender burden, or stretches her aching limbs. The very outcast of the streets has pity upon her sister in degradation, when the seal of promised maternity is impressed upon her. The remorseless vengeance of the law, brought down upon its victim by a machinery as sure as destiny, is arrested in its fall at a word which reveals her transient claim for mercy. The solemn prayer of the liturgy singles out her sorrows from the multiplied trials of life, to plead for her in the hour of peril. God forbid that any member of the profession to which she trusts her life, doubly precious at that eventful period, should hazard it negligently, unadvisedly, or selfishly!" I doubt if a more beautiful expression of noble sentiment exists in the medical literature of any language. Dr. Briggs has taken as a working basis for his paper five postulates. The profession has no control over the first three of these, and it is against the fourth condition, the innoculation of the genital tract with the germs, that we must guard particularly. We must prevent infection from two sources, the patient and her surroundings—her physician and her nurse. A difference of opinion exists as to the value of the prophylactic douche; if properly conducted the douche can do no harm. Dr. Briggs has considered in detail means of prevention of infection from the patient. The prevention of infection from the bacilli coli commune is of great importance, as this bacillus causes not only a local infection but may be disseminated throughout the tissues of the body before displaying marked symptoms, and the disease is then beyond control. The doctor has well emphasized the importance of the selection of a competent nurse. We have many indifferent nurses in Sacramento and a small supply of competent ones. In regard to the care of the physician himself, there are two points to which I think it may be well to give attention: First, the limitation of examination for diagnosis of the presentation. Frequent internal examination multiplies the liability to infection. Prof. Leopold, of Dresden, is very decided on this point, and allows his patients to be examined but once internally. He has a special method for external examination, and his assistants seldom fail in making a correct diagnosis of position by it. Second, the prevention of laceration. I noticed a late statement to the effect that 35 per cent. of primiparæ were lacerated, whereas only 20 per cent. were unavoidably lacerated. Laceration increases the chances of infection very decidedly, and this percentage should be reduced Having been unable to prevent the fourth condition, we are forced to combat the absorption of the toxic products developed by the germs, or the general dissemination of the germs throughout the body, which condition we find much more difficult to control. The specific treatment referred to by the author promises to be of great importance. Reports of results from the use of antistreptococcic serum have been somewhat conflicting, but judging from those cases selected by bacteriological examination, I believe we have reason to hope for favorable results in cases of streptococcic infection. In cases of infection with the Klebs-Loeffler bacillus, I believe diphtheria antitoxine is as properly indicated as in pharyngeal or laryngeal diphtheria. I have noticed reports from quite a number of cases so treated lately, and the results have all been favorable. It is important not only to make a differential diagnosis of the nature of the infection, but also a differential diagnosis from other diseases. In Sacramento we are likely to suspect malaria, but in this we should be more than ordinarily careful. The microscopical examination of the blood, while not generally practicable, would be the most decisive means of differentiation. This method may also be used in differentiating between puerperal fever and typhoid fever. In Vienna, a patient was removed from the obstetrical ward to an infected ward, because of a clinical diagnosis; the microscopist's examination of the blood showed an absence of leucocytes, on which account he did not confirm the diagnosis of puerperal fever. The later course of the disease demonstrated the case to be one of typhoid fever, in the early stage of which disease, the white blood corpuscles are not increased in number. The special merit and originality of the paper is in the local treatment. The method is certainly aggressive and meets every indication. The continuous irrigation and drainage, allowing no chance for the accumulation of poisonous products, cannot but recommend itself to all. The fluid advised, in addition to being antiseptic and hygroscopic, is also stimulating The special instrument for drainage meets the opposition offered to the gauze drain, which, unless carefully applied, may become rather an obstruction than otherwise.

Dr. W. H Baldwin: I have a case of puerperal fever under my care at present which I am irrigating with formalin solution The case was a primipara. There was a slight laceration of the perineum from which came infection. The temperature ranged from 99° to 102° F. The pulse at no time ran above 90, and in that connection I might add that in other cases of puerperal fever that have come under my observation there was an absence of high temperature, or any indication of septic trouble. In regard to the use of antitoxic serum in the control of mixed or unmixed affection, it is claimed that the temperature goes down rapidly and the patient is saved considerable trouble. I was much pleased with Dr. Briggs' paper, but I think it will be found difficult to follow it out in general practice, as frequently the practitioner is not called until active labor has begun and he knows nothing of the condition of the parts, nurse, or surroundings There is usually no hot water in the house, and no precautions have been used to prevent infection.

Dr. G. C. Simmons: It seems to me it would be well to carry out antiseptic precautions In my experience I have occasionally met with cases where the canal developed infection after the child was born, and if we were aware of that fact we might be able to treat it accordingly. To-day my attention was called to the fact that some homeopaths in this city claim that such preliminary treatment is all bosh; that they get as good results from sterilized water. They claim it is all that is necessary, and would be willing to place their results against those of any practitioner in this city. My ideas, however, are in accord with those of Dr. Briggs.

Dr G. L Simmons: While Dr. Briggs was reading his paper there came to my mind one of the Society's earlier discussions upon the contagiousness of puerperal fever. I think the members were about equally divided upon the subject, and only a few had a word to say upon a possibly correct germ theory of the disease. With the later knowledge upon the subject it now seems difficult to believe that a large number of physicians followed the lead of Professors Hodge and Meigs in opposing the views of Oliver Wendell Holmes, who proved that accoucheurs were often the bearers of infection to lying-in patients. In one of Meigs' lectures he says: "I attribute the disease to accident or Providence, of which I can form a conception, rather than to a contagion, of which I cannot form any idea." In relation to the best treatment in those serious cases where the whole circulatory system has been invaded by septic germs, I think more favorably of the use of the normal salt solution than of serum.

Dr. Thos. Ross: I do not believe in douches prior to labor. In healthy women the pathogenic germs are found not in the upper portion of the vagina, but near the introitus. We cannot improve upon nature. The secretion from the vagina prior to labor is put there for a purpose, and I think that purpose is to prepare the parts for the duty to be accomplished, and when we use douches prior to that we wash away that secretion and thereby interfere with labor and take a step towards infection. In a healthy woman the douche is not required, and is of no benefit. It would be sufficient to wash the external genitals with soap and water, or a solution of lysol, creolin, or formalin. The physician and attendants should be clean. The clothing of the patient and the bed clothes should be clean, and that is all that is required.

Dr. T. W. Huntington: I do not consider myself an authority upon this line of work. My practice in obstetrics is very small indeed, yet I feel it is a subject that every physician should take an active interest in. It seems to me that the author has omitted the elaboration of two or three points which have always impressed me in my relation to such cases. The first point, which is omitted entirely, is the securing of rapid reduction in the size of the uterus itself after labor, the most rapid possible return to the normal condition of the uterus. It not infrequently happens, I believe, that a clot is allowed to remain within the cavity of an uncontracted uterus, and there is nothing that offers a more serious menace to the patient's safety than the presence of such a mass. The uterus contracts to a certain degree and becomes inert. A clot when allowed to remain for a period of days is certainly a very excellent field for the cultivation of germs, hence I should say that in all cases after labor is over the physician in charge should keep a careful eye upon this point. I think it is as important as the preliminary preparation. In a word, attention to this detail is perhaps the most important of all precautions, and if neglected I believe there is serious danger, even though the environment of the patient be good. Removal of the entire membrane at the time of labor is also of importance. Regarding the treatment of the condition after infection is established, I think the cold coil is indicated, as it prevents the spread of infection, and the inhibition of the germs themselves Upon this point I would say that I believe the cold coil is in place and a very valuable agent in the hands of the physician or surgeon. I have seen, in cases analogous to puerperal fever, excellent results following the application of the cold coil in the presence of surgical infection.

Dr. H. D'Arcy Power: Like other speakers, I wish to congratulate the essayist on the basis of strict scientific rationalism underlying his deductions. I agree, in the main, with both his principles and details of treatment; and the sole point of difference between us is one of relative stress. I note that Dr. Briggs, while mentioning the physical condition of the patient as a factor in subsequent puerperal troubles, gives no further attention to the subject in the prophylaxis he recommends. He lays his stress upon details of asepsis, whilst I am inclined to attach a greater weight to the importance of maintaining the highest possible condition of physical well being during pregnancy. I would have you remember that parturition is an entirely natural process, and certainly a common one Since the beginning of terrestrial life, the entire animal kingdom has gotten through this so-called "capital operation" without any excessive mortality and without the aid of aseptic midwifery, and in spite of their dirty surroundings. On the other hand, conditions of depressed vitality do raise the mortality, as we see in the difference between savage and civilized women. And this is what we ought to expect. It is now well known that it is not the presence of germs that determines an infection, but the question whether, being present, they can be resisted; and this is a question of the physical well being of the leucocytes and the tissues. By no process can we make the genitals aseptic, but we can, by exercise, diet, etc , raise the standard of health during pregnancy, and so resist the attacks of pathogenic bacteria during the puerperium. I in no way deprecate the use of rational attempts at asepsis, but I attach a greater importance to maintaining a high standard of health. In this position I am supported by my personal experience, covering some two thousand five hundred cases without a death, and without the employment of any such elaborate toilet as Dr. Briggs has laid down as the condition of successful midwifery. This is a question on which medical men should be perfectly honest in relating their experience. I greatly doubt whether the majority here present have used, or been able to use, these precautions in the great majority of their cases, and yet I doubt whether their mortality has been abnormally high.

Dr. L. A Harcourt: Since this disease is manifestly infectious, its prevention might be summed up in the single word, cleanliness. But as absolute cleanliness is not attainable, it may be summed up in the four words, antiseptic and aseptic midwifery Antiseptic is placed first, because it was practised first, and because while aseptic midwifery is always preferable, it is not always possible without antiseptic precautions. Semmelweis was the first modern physician to practise antiseptic prophylaxis. In 1847, he used chlorine and calcium chloride for that purpose, in the Maternity Hospital of Vienna. The results were excellent. The method was adopted in the maternity hospitals of Europe, and the mortality thereby was greatly reduced. The brilliant results obtained by Lister from the use of carbolic acid in surgery, led Stadfeldt, in 1870, to use it as an antiseptic in midwifery. Bischoff, of Basle, and Fritsch, of Halle, followed suit, and its results were so gratifying that its use in obstetric practice spread rapidly over Europe and America, and soon superceded all other methods of prophylaxis. Tarnier inaugurated another era in midwifery, by the introduction of mercuric chloride as a germicide. The experiments of Koch proved its claims to be well founded, and Schede, of Hamburg, made it popular by introducing it into surgery. Since then it has maintained its place as a germicide and prophylactic against all competitors The elaborate system of antiseptic prophylaxis based upon its use, established in the Maternity Hospital of New York, in 1883, by Thomas and Garrigues, if equaled, has never been surpassed. The physician who rigidly carries it out will never have a case of puerperal infection in his own practice. The mortality from puerperal infection in the maternity hospitals of this country prior to the introduction of antiseptic prophylaxis, ranged from 4 to 15, and in some cases as high as 18 or even 20 per cent After its introduction, it fell to from 2 to 1 per cent., and, as the system became more perfect, to from $\frac{3}{4}$ to $\frac{1}{5}$ of 1 per cent. These facts prove that puerperal fever is infectious; that its mortality, when unchecked, is enormous; that it is preventable, and that by proper antiseptic prophylaxis it may be excluded from the lying-in chamber. If this be true, it is absolutely criminal in a physician to neglect the precautions necessary to secure the safety of his patient. As late as 1875, the International Medical Congress, at Brussels, passed the following resolutions: (1) Large lying-in hospitals ought to be abolished. (2) Confinements at the houses of the patients ought to be encouraged as much as possible, by assistance being supplied to pregnant and lying-in women at their homes. (3) By having women confined at the houses of midwives, the mortality is diminished. The foregoing resolutions speak for themselves. They show what physicians thought of maternity hospitals in 1875. To-day, when antisepsis and asepsis is as familiar to physicians, and even to the laity, as household words, it is considered safer to have women confined in them than in their private homes, even when they are the homes of comfort and luxury.

Dr. H. D. Lawhead, of Woodland: From the standpoint of a country practitioner I think it would be absolutely impossible to carry out the suggestions of the author in detail, but we can select that which we may be able to execute Women in the country try to do many things and spoil all of them. I think that we physicians in the country ought to talk more to our patients and have them understand more about themselves so that they might know what is necessary for them in such cases, and what to avoid. I have often had old ladies in the country, and nurses, too, insist that where a woman showed fever on the third or fourth day there was something wrong with the milk.

Dr. Briggs, in replying, said: I desire to enter an emphatic protest to the opinion expressed in this discussion that in obstetrics the general condition of the patient is of more importance than the precautions of asepsis and antisepsis. On the contrary, these precautions have made modern surgery, and justify the presence of the physician in the lying-in room. Disregarding these precautions the mortality of the lying-in hospital rises to 5, 10, 15, 20 per cent., observing them it falls to a fraction and a small fraction of 1 per cent Without these precautions the obstetrician is the greatest scourge of medical history. In comparison with these precautions the condition of the lying-in woman as influenced by medicine sinks into absolute insignificance. Why is human labor more frequently followed by disease and death than labor in the lower animals? Simply and only because of the presence in the lying-in room of the unclean physician, the unclean nurse, and other means of infection. The conditions of surgery and of obstetrics are parallel, and it is these precautions, and these precautions only, which have made modern surgery and modern obstetrics a possibility.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting, November 9, 1897.

The President, F. B. CARPENTER, M.D., in the Chair.

Election of Officers.—This being the annual meeting, the following were elected officers for the ensuing year:

President	A. P. WOODWARD.
First Vice-President	J. F. MCCONE.
Second Vice-President	T. B DEWITT.
Recording Secretary	G. H. EVANS.
Assistant Recording Secretary	F. B. PETRIE.
Corresponding Secretary	L. M. F. WANZER.
Treasurer	E. E. KELLY.
Librarian and Curator	D. W. MONTGOMERY.
Trustees	HENRY GIBBONS, JR., W. F. MCNUTT, C. C WADSWORTH.
Committee on Medical Ethics	W. S. THORNE, R. L. RIGDON, A. K. HAPPERSBERGER, S. P. TUGGLE, J. M. WILLIAMSON.
Committee on Admissions	G. W. DAVIS, R. M. H. BERNDT, MARY E. MORRISON, GEO. W. MERRITT, H. PHELAN.
Committee on Finance	C. G. KENYON, L. L DORR, DUDLEY TAIT.
Committee on Library and Publication	D. W. MONTGOMERY, C. A. VON HOFFMAN, LEO NEWMARK.
Executive Committee	P. M. JONES, A. H. TAYLOR, DUDLEY TAIT.

Regular Meeting, January 11, 1898.

The President. A. P. WOODWARD, M.D., in the Chair.

DR. H. M. SHERMAN presented a case of "Sporadic Cretinism" in a child two years of age.

DR. KROTOSZYNER reported "A Fatal Case of Bacterial and Protozoan Infection, with a report of the autopsy by Drs. Philip King Brown and Clarence Quinan."

DR. PHILIP KING BROWN exhibited the bladder of the patient and called attention to the hemorrhagic spots, the infection of which had caused the necrosis

DR. D W. MONTGOMERY: This case has been remarkably well worked out. These complicated infections are most puzzling, and it is practically impossible to arrive at a full diagnosis before the autopsy. The lesion on the left must have simulated anthrax, but that would have been an unusual place, it occurring mostly upon the face and hands. Sometimes one cannot find the anthrax bacillus; they undergo involution forms and die out. The remarks regarding the staphylococcus are interesting. A case now under the care of Drs. Morse and Baum, is an example. In this case the staphylococcus aureus has given rise to the worst carbuncle that I have ever seen, and sitting deeply in the neck, requiring eradication by the knife. It is indeed strange to see the staphylococcus aureus at one time doing so much and at another doing so little, at one time an acne furuncle abscess, and then a profound general disease It must have many forms. This one infected Dr. Baum's own finger and caused severe poisoning. We have such cases in dissecting rooms.

DR. C. G KUHLMAN: It seems to me that the case merits more than a passing notice, owing to the acknowledged perplexity in diagnosis, especially so, when two old practitioners like Drs. Rosenstirn and Chismore are connected with the case. In conformity with the maxim of Herbert Spencer, "That it requires constant and varied iteration to force alien conceptions upon reluctant minds," I will once more iterate and demonstrate that bacteriologic investigations are of no value in elucidating the causes of disease. In prebacteriologic times, this case would have been diagnosed as one of ulcerative entero-colitis—

"Typhoid Fever," as it were. The mammary abscess would have given no surprise, as extensive abscesses occur quite frequently in severe cases; some have been observed by me in my own private practice, and in that of others. Nor would the hemorrhagic infarction and necrosis of the kidneys and bladder have given rise to any surprise, as nervous thrombosis is quite common in severe cases. The presence of the bacterium coli commune and other mentioned bacteria is common too. It is always present in the healthy gastro-intestinal tract of man and of the lower animals. It can have no etiological signification; because it has been fully demonstrated by Peter F. Hoest, Van Enningen, Garteur, Paacke, and Duchaux, that these bacteria invade the blood and parenchymatous organs, immediately before or after death, in all cases of gastro-intestinal inflammation or degenerative processes of internal organs. As I have said before, "Widal's Test" is worthless in typhoid fever, as the so-called Eberth's bacilli, agglutinate in the presence of other pathologic serums, and a number of chemical substances. At the last meeting of the American Medical Association, such microscopists as Geo. M. Sternberg, Osler, and Welch, were forced to admit, that even the so-called bacillus tuberculosis could not set up a pathologic process *de novo*, loss of physiological resistance, inherited or acquired, being essential to its physiologic activities. In 1856, Prof. Paunson, of the University of Copenhagen, demonstrated, for the first time, that toxic entero-colitis was due to a definite chemical substance indestructible by heat generated by the histologic elements of the organism itself, under certain abnormal conditions. This was afterwards confirmed by the exhaustive researches of Schmeideberg and Bergmann, who designated it as sepsis. In reply to an inquiry as to what organs he considered parenchymatous, the speaker said all vascular organs, as the liver, brain, lungs, etc.

Dr. Brown: In 19 autopsies of cases of typhoid fever, where the diagnosis had been made by Widal's reaction, there were no intestinal lesions in 7. Richardson, in Boston, reported a case where there was an absence of any intestinal lesion, and an inflamed gall bladder. So, in the employment of Widal's reaction, care must be used.

Dr. Krotoszyner: As to etiology, mixed infections are seen quite often. Clinically we see many cases; for instance, we may have a man with malarial infection, who develops a pleuritic effusion. If we would look over our cases we would find many such. The etiology is not at all clear. The diagnosis was very difficult, and when we made the first diagnosis of probable typhoid fever, the symptoms were very obscure. Such quick infection and other symptoms are rarely found in typhoid, if at all. This case will be valuable in literature for future investigation.

Dr. E. O. Jellink reported a case of "Sporadic Cretinism;" the patient was 26 inches high and grew, in 6 months' treatment, 6 inches.

SPECIAL CORRESPONDENCE.

CEYLON.

The Chinese Physician.—Celestial Therapeutics.—Oriental Massage.—The Value of the Pulse in Chinese Medical Diagnosis.—Medical Missionaries in China.—Ceylon Medical College.—The Native Races.

If one wishes to find the prototype of the Chinese physician, he need only visit the "Temple of Horrors," in the city of Canton. In the court-yard of this temple, where, by hideous wooden figures, is illustrated the different tortures and punishments of the Buddhist hell, sits this juggler of human life before a dirty stall, on which rest still dirtier bottles containing his weapons of destruction. He is a model of dignity, with his long white moustache and beard, and large tortoise shell spectacles, which almost cover his face. The turbulent crowd which frequents this quarter of the city, respect his presence as a divine personage, enveloped in the mysticism of the occult arts. Many young graduates in medicine would find in the Chinese physician a paradigm worthy of emulation as far as deportment is concerned. He no doubt effects many remarkable cures through an agency which he knows nothing at all about, but in which he has indomitable faith. We, of the Occident, have dubbed this agency suggestive therapeutics, but we wield it with a less potent hand than does our oriental colleague only because we have less faith in its use and our patrons are less influenced by the subtleties of its mysticism.

If we consult him for an ailment, the Chinese doctor may or may not begin his professional performance by palpating the pulse, but he always concludes the exhibition by requesting the applicant for relief to shake a tin box full of bamboo sticks until one falls out. All the sticks are numbered and have reference to a list of prescriptions. Thus, prescribing in China is a lottery, and so is life It is *similia similibus curanter* transplanted to the far East. Ginseng is a very valuable and expensive drug, employed by the Chinese as an aphrodisiac. They believe that after three centuries the ginseng plant is converted into a man with white blood, which is the true elixir of immortality. Bamboo leaves, burnt oyster shells, fossil and tigers' bones, are only a few of their greatly prized remedies. The bite of the cockroach (*periplaneta orientalis*) is regarded as an excellent vermicide. In some towns in Southern China, women's milk is on sale for motherless infants and the decrepit. The present Empress Dowager about 13 years ago, at the change of life, hired a wet nurse, and this is not an unknown practice among the Chinese of the upper classes, for they argue, that milk is the most potent nourishment for the vitality of infants, therefore its virtues cannot be disdained in later life.

When a Chinese patient is very sick, he always has recourse to the Kung-Fu, a system of treatment corresponding, in a measure, to our massage. The Kung-Fu can be traced back to the time of Hwang-ti (2698 B.C.), and is, therefore, a very ancient system. It consists, as adopted originally by the Tauist priests, of placing the body in different postures and employing different methods of respiration. The whole system is eminently absurd and rests on no scientific substratum. It is strange that in a country where human life is a drug on the market, the Chinese have not acquired by dissection even an elementary knowledge of anatomy. If their talent, industry, and perseverance, so manifest in the industrial arts, had only been directed toward the study of man, there is no telling what position they would have occupied in the medical world to-day; but their medical system is philosophic and bound by traditional reverence to antiquity. In China, criminals are slaughtered every day like animals, and in the *Ma Tan*, an execution ground in Canton, an area not more than 90 feet long by 30 feet wide, there have been more individuals executed than on many of our battle fields. Dr Dudgeon, of Pekin, has given very careful study to the Kung-Fu system, and he believes that advantage is derived from Kung-Fu in the prevention and cure of disease, and in the strengthening of the body. For the treatment of spermatorrhea, the following method may be cited in illustrating the Kung-Fu system:

The patient sits upright with both feet raised; rub the soles of the feet until warm, then move the air right and left in 30 mouthfuls and so the semen will not flow away. The Chinese believe that *Ching* (semen) is secreted in the kidneys and can be dispersed throughout the organism, and thus be prevented from collecting and flowing away.

To cure diseases by perspiration, the position of certain animals is assumed. Thus in the "monkey posture," the patient stops his breath and assumes the form of a monkey climbing a tree, then, on the heel of one foot, the body is turned, causing the divine air to revolve. This divine air will be carried to the abdomen and perspiration will be soon felt. If it were as hot as it was on the day I was in Canton, decidedly less exertion than this would induce diaphoresis. The Tauists believe that air is conveyed down to an imaginary spot one inch below the umbilicus, thence to the coccyx, which is pervious in the young, but obliterated by fat in old persons; thence the air passes to the occiput: then over the vertex to the brow "the heavenly door," finally finding egress by the nostrils as foul air. The Tauists prefer taking their exercises in the monasteries in the hills, as the air is pure there, and I think any person who has ever visited Canton will be enthusiastically inclined to agree with them. Kneading of the muscles is also included in the Kung-Fu method, and aside from the sophistry which dictates its employment, it is almost as systematized as is scientific massage.

I have never before understood why our Chinese colleagues in San Francisco, who at one time commanded the patronage of some of our wealthy citizens, should direct so much attention to the palpation of the pulse. We also feel the pulse, but not with the earnestness of the Chinese physician. Beyond determining the rapidity of the pulse, we disregard almost every other condition. The Chinese physician, however, is a thorough sphygmologist. It is his chief avenue of diagnosis. He believes that each organ has a blood vessel going to it, and as there are 12 Chinese hours in a day, and as the blood and air make a circuit of the entire body in 24 hours, the blood remains in each organ for two hours. There are 12 pulses, one for each organ. These pulses in the same person are divided into male and female. They continue the subdivision into superficial, deep, and intermediate pulse, according to the degree of pressure employed in palpation. As an example of the aid which palpation of the pulse affords in diagnosis, the pulse of the large intestine may be instanced. It is felt at the foot. The blood going to the intestine is supposed to rise from the thumb and index finger and pass upward to the head, then to the lungs, and thence to the intestines. Branches run to the ear and mouth. Ringing in the ears and deafness are caused by the large intestine, the blood being present in this organ from 5 to 7 A. M.

The foregoing reference to Chinese medicine is only of contemporaneous interest in illustrating the benighted state of China, where its medical tenets have been preserved in their primeval vigor through hundreds of years, unsullied by the progress of science. To the student of medicine as well as the humanitarian, the indefatigable work and martyrdom of the missionaries must awaken the profoundest respect, and while their efforts have not yet been attended by brilliant results, we must concede the almost insuperable obstacles which beset their path, for it is not easy to subdue a mind enslaved by heritage and insuperably bound to a blind faith which still further imposes the obligation of thraldom on its votary. Medical missionaries are rapidly establishing hospitals all over China, and it is only a question of time when this practical Christianity must appeal to the individual, even though the only avenue open for its reception is mere instinct.

In Ceylon, the paradise of palms, pearls, and perfumes, an alliterative encomium which it richly deserves, one finds in the fauna and flora, much to interest the medical man. I visited the Ceylon Medical College, in Colombo, and was agreeably surprised to find an excellent institution with all modern facilities. It was founded in 1870, and at the present time of writing has about 100 students enrolled among its matriculates, many of whom are women. The curriculum is modelled after the medical colleges of Great Britain. The Licentiate (L.C.M.C.) is granted after five years of professional study. There is a large General Hospital, in which the students of the Medical College receive their clinical instruction, which is thorough and extensive, for the yearly admissions average over 7,000.

The population is made up of Europeans, Tamils, Moormen (Indo-Arabs), Malays, Veddahs, with, of course, a preponderance of Singalese. The natives are slavishly addicted to the use of the betel nut. Women, men, and even children employ it. The nut from the areca nut palm (*areca catechu*) is cut into narrow pieces and rolled up with a little lime (*chunam*), in leaves of the betel pepper, and the pellet chewed. It is very acrid and imparts a blood red color to the lips and saliva, and stains the teeth. The natives would rather dispense with food and drink than their beloved areca nuts. It produces a kind of intoxication, not as profound as that of opium or alcohol, but approaching tobacco in its effects, although one can observe that the pellets, as sold on the streets, always contain some tobacco leaves.

COLOMBO, January 15, 1898. ALBERT ABRAMS.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At a meeting of the Board of Examiners, held March 3, 1898, the following were granted certificates to practise medicine in this State:

Chas. A. Bailey, Los Angeles; Med. Dept. Univ. Vermont, June 28,'78.
Louis Barkan, San Francisco; Univ. Wurzburg, Bavaria, Germany, Feb. 6,'69.
Gilbert M. Barrett, Berkeley; Bellevue Hosp. Med. Coll. N. Y., March 25,'95.
E. G. Bennett, Little Shasta; Rush Med. Coll. Ill., Feb. 25,'78
B. F. Church, Los Angeles; Coll. Phys. and Surgs., Baltimore, Md., March 15,'88.
Emit J. Cox, Los Angeles; Central Med. Coll. Mo., March 4,'95.

Wm M. Cummings, San Diego; Coll. Phys. and Surgs. Keokuk, Iowa, March 1,'81.
Edward N. Ewer, Oakland; Med. Dept. Univ. Michigan, June 30,'92.
Christopher Gunn, Alameda; Queen's Univ. Ireland, June 22,'74; King's and Queen's Coll. Phys. and Surgs Ireland, Jan 10,'77
Elsa Delno Johnson, Salem, Or.; Med. Dept. Willamette Univ. Or., March 31,'97.
Otto Chester Joslen, San Diego; Detroit Coll. of Med. Michigan, May 4,'93.
F. W. Mox Klonk, San Francisco; Baltimore Med. Coll. Md., April 17,'94.
Robert John McAdory, Pasadena; Med. Dept. Univ. City of New York, May 4,'97.
James L. McClelland, Anderson; Cooper Med. Coll. Cal., Dec. 8,'97.
Chas. G. Stivers, Lamanda Park; Med. Dept. Univ Penn., May 1,'91.
J. Goodwin Thompson (lieu certificate), Oakdale; Med. Dept. Univ. Cal, Nov 20,'94.
Coyle John Tracy, Los Angeles; Baltimore Med. Coll Md, April 13,'97.
Jay D. Van Wirt, Redlands; Albany Med. Coll. N. Y., March 7,'83.
Charles Ernest Wade, Portland, Or; Med. Dept. Univ. Oregon, April 5,'97.
Henry Charles Whiting, Santa Cruz; Chicago Med. Coll. Ill., March 27,'88.

CHAS. C. WADSWORTH, Secretary.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific) from January 20, 1898, to February 20, 1898.

Major William W. Gray, Surgeon, is relieved from duty at Fort Apache, Arizona, to take effect upon the expiration of his present leave of absence, and ordered to Fort Huachuca, Arizona, for duty.

Captain Paul F. Straub, Assistant Surgeon, is relieved from duty at Angel Island, California, and ordered to report in person to the Commanding General, Department of the Columbia, without delay, for assignment to duty.

Captain Frederick P. Reynolds Assistant Surgeon, on being relieved from duty at Fort Clark, Texas, is ordered to Vancouver Barracks, Washington, for duty at that post.

Captain William L Kneedler, Assistant Surgeon, is relieved from duty at San Diego Barracks, California and ordered to report in person to the Superintendent of the U. S. Military Academy, West Point, New York, for duty at that post.

First Lieutenant John S. Kulp, Assistant Surgeon, will report in person, on February 22, 1898, to the President of the Examining Board appointed to meet at Vancouver Barracks, Washington, for examination as to his fitness for promotion.

A board of officers, to consist of Lieutenant Colonel William D. Wolverton, Deputy Surgeon General, Major John Van R. Hoff, Surgeon, Captain Frank R Keefer. Assistant Surgeon, is appointed to meet at Vancouver Barracks, Washington, on Tuesday, February 22, 1898, at 10 o'clock A.M., or at such time thereafter as practicable, for the examination of such officers of the medical department as may be ordered before it, to determine their fitness for promotion.

First Lieutenant Irving W Rand, Assistant Surgeon, is relieved from duty at Fort Huachuca, Arizona, and ordered to Fort Du Chesne, Utah, for duty

First Lieutenant Charles E. B Flagg, Assistant Surgeon, is relieved from duty at Fort Du Chesne, Utah, and ordered to Columbus Barracks, Ohio, for duty.

Captain Euclid B. Frick, Assistant Surgeon, will proceed to Fort Baker, California, and report, upon arrival, to the commanding officer of that post for temporary duty. Par. 2, S. O. 15, Dept. of Cal., Feb. 17, 1898.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service (District of the Pacific) from January 20 to February 20, 1898.

S. D Brooks, Passed Assistant Surgeon, relieved of command of service at Port Townsend, Washington, and to remain in command of Port Townsend Quarantine.

T. B. Perry, Passed Assistant Surgeon, Buffalo, New York, upon being relieved by Passed Assistant Surgeon J. B. Stoner, to proceed to San Francisco, California, and report to medical officer in command for duty and assignment to quarters.

J. C. Perry, Passed Assistant Surgeon, Portland, Oregon, upon being relieved by Passed Assistant Surgeon Rupert Blue, to proceed to Port Townsend, Washington, and assume command of service.

Rupert Blue, Passed Assistant Surgeon, upon being relieved from duty at San Francisco Quarantine, to proceed to Portland, Oregon, and assume command of service.

H. S. Mathewson, Assistant Surgeon, upon being relieved from duty at San Francisco, California, to proceed to San Francisco Quarantine and report to medical officer in command for duty and assignment to quarters.

Official List of Changes in the Medical Department U. S. Navy (Pacific Station) from January 20, 1898, to February 20, 1898.

J. C Thompson, Assistant Surgeon, detached from Naval Hospital, Mare Island, California and ordered to U. S. S. "Mohican."

ITEMS.

Dr. F. R. DeLappe has removed from Santa Rosa to Modesto, Cal.